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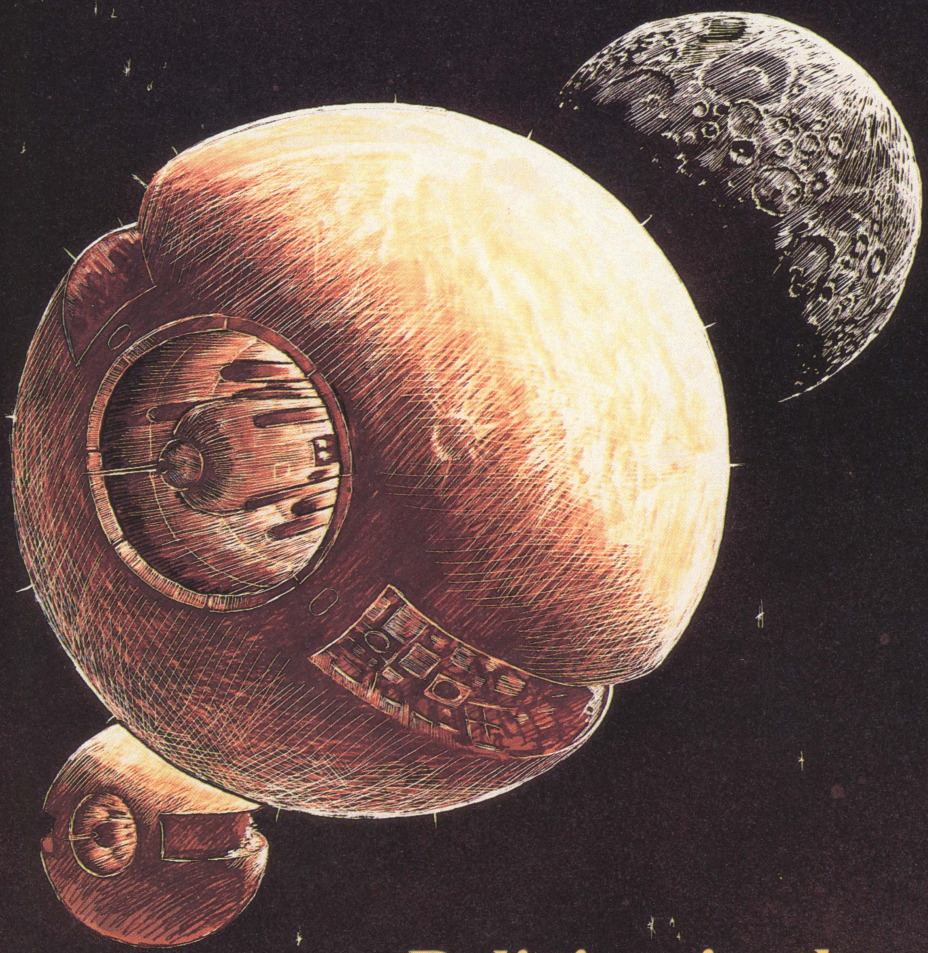

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The *Journal of the Travellers' Aid Society* is Game Designers' Workshop's registered trademark for its science fiction gaming magazine devoted to **Traveller.**

Traveller is Game Designers' Workshop's registered trademark for its role-playing game of science fiction adventure set in the far future.

Dates in this issue of the *Journal* are given in accordance to an arbitrary Imperial calendar of 365 days. The date consists of a three-digit day number (the current day of the year) a dash, and a four digit number (showing the current year since the founding of the Imperium).

The date of this issue is **290-1111**, or the 290th day of the 1111th year of the Imperium.

The *Journal of the Travellers' Aid Society* is a science fiction magazine devoted to **Traveller**, GDW's role-playing game set in the far future.

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Submissions: We welcome articles and illustrations for the *Journal.* Please inquire before submitting manuscripts, enclosing a stamped, self-addressed envelope; we will send manuscript guideline and format sheets. Foreign inquiries (except APO/FPO) please include International Reply Coupon.

TRAVELLER NEWS SERVICE

DENTUS/REGINA (0601-C979500-A) **Date 263-1111**

¶ A group of renegade Vargr operating as freebooters in the Spinward Marches continues to elude capture. Despite assurances by Naval spokesmen that they pose no serious threat to shipping in the region, insurance rates for vessels operating in the sector have remained at their war level.

¶ When questioned about the reasons behind this, a representative of Hortelez et Cie (who underwrite a major fraction of mercantile surety policies in the sector) agreed to comment briefly. Hortelez, feels that although no ships had been lost to the Vargr after the destruction of the renegades' resupply base in the Heya system, ''a number of unexplained or incompletely explained disappearances have given us cause for some concern.''

¶ Asked if they felt the Imperial Navy was not doing its job properly, the Hortelez spokesman responded: ''We believe that the Navy is doing all that can be reasonably expected under the circumstances. We are merely excercising caution until it is verified that the renegades have been dealt with. This action is not a refection on the Navy. We are merely acting in the best interests of our stockholders by keeping our risks at a minimum.''

JUST DETECTED

CONVENTIONS

Novocon

November 23, 1985, Akron, Ohio. A one day mini-con, to be held at the Gardner Student Center of the University of Akron, in Akron, Ohio. For further information, write: NOVOCON Convention Comittee, PO Box 7411, Akron, OH 44306

DunDraCon X

February 14-17, 1986, Oakland Airport Hyatt, Oakland, California. This event will include games (using almost every system now in print, the flyer says), seminars, a painting contest, SCA events and a flea market. For further information write: DunDraCon, ATTN: T.O. Green, 386 Alcatraz Ave., Oakland, CA 94618.

MAGAZINES

The Fantasy Book

Issue #17 (September 1985) and issue #18 (December 1985) contain short stories by Jefferson P. Swycaffer (author of a series of **Traveller**-inspired books published by Avon, see below). **Traveller** players might find these stories of interest as background, although they have little direct application to the rules.

Published quarterly, $3.95 per copy, $12 for a one year subscription.

Publisher: Fantasy Book Enterprises, PO Box 60126, Pasadena, CA 91107.

The Travellers' Digest

Second issue of the new **Traveller** magazine produced by the Digest Group. This one contains a complete adventure, with 11"×17" fold-out map. The adventure, "Journey of the Sojourn Moon," takes the characters to a seemingly low-tech culture with a mysterious past.

Other articles feature the second part of the robot design article begun in the first issue, a journalist character generation system, high-tech recording devices, and a system to help referees determine the duration of a task.

Single issues are $3.95, subscriptions are $14.00 for four issues.

Publisher: Digest Group Publications, 8979 Mandan Court, Boise, ID 83709.

BOOKS

The Universal Prey

This is Jeff Swycaffer's third book in a series of novels that share a common background (which just happens to have been his **Traveller** campaign!). *The Universal Prey* is about a top-level professional assassin, his betrayal and pursuit, and sundry alarums and excursions which result.

Paperback book, 191 pages, $2.95, ISBN 0-380-89662-1.

Author: Jefferson P. Swycaffer

Publisher: Avon Books, 1790 Broadway, New York, NY 10019.

ACCESSORIES

Caps

Trantor Merchants have been kind enough to send us samples of one of their **Traveller**-related products, a 4518 Lift Infantry (Duke of Regina's Huscarles) cap. An *Azhanti High Lightning* cap will be available soon. Direct inquiries to Trantor Merchants, C/O Brad Porter, 329 NE Fairgrounds Rd, #E103, Bremerton, WA 98310.

Religion in the Two Thousand Worlds

Like most intelligent races, the K'kree have evolved elaborate religious beliefs to help explain their place in the universe, the purpose of life, and the promise of the future. The K'kree, among the most conservative of the major races, are unique in several ways when it comes to the question of religion and philosophy.

First, they are more closely rooted in the traditional beliefs of their ancestors than any of the other major races. K'kree religion and philosophical thought have been less affected by the developments of science, particularly by exposure to non-K'kree beliefs, than is the case with any of the other major races. The religious principles of their forefathers have been handed down almost unchanged from the earliest K'kree civilizations, over a period of several thousand years (as if we on Earth worshipped Ra in the manner of the early Egyptians).

Secondly, the K'kree religion is monolithic. Like their government, the K'kree religion is a universal "state religion," not fragmented as with most other star-faring societies. There are few K'kree who do not subscribe to the same beliefs, and two K'kree theologians from opposite ends of the Two Thousand Worlds could exchange views without disagreement or controversy.

Finally, the K'kree religion is, by our standards, an undemonstrative one. Like

Taoism in Earth's China, the K'kree religion is less a way of worship than it is a way of thought and belief. While K'kree religious writings abound in myths and legends, and there is a definite belief in divinity and in divine purpose, the K'kree never seem to have evolved the notion that their deities could be swayed by prayer, offerings, promises, or good behavior. As suits a harsh and militant people, the divine play is distant, inscrutable, and unrelenting.

The K'kree religion is a fatalistic one, in which the concepts of "fate" or "karma" from terrestrial religions would be very much appropriate. The K'kree believe that most of what happens has been long since preordained, and is quite unchangeable by any mortal agency. This fatalism, however, is tempered by an absolute faith in their own glorious destiny. In accordance with the basic concept of the group being far more important than the individuals that make it up, the K'kree believe that no number of reverses, crises, or individual tragedies can prevent the K'kree race from fulfilling its ordained role. Thus, fatalism does not hamper them; instead it makes them almost fanatical. If a K'kree soldier has been fated to die, he will die...no amount of running from destiny will stop him from being killed. Thus, he is more inclined to put his every effort into the battle. The same is true of all of K'kree life.

As befits their natures, the religion of the K'kree is perhaps the most supremely polytheistic religion practiced by any race anywhere. The K'kree believe that each and every living K'kree is the worldly counterpart of a divine being. The religion holds that there is an ideal universe, somewhere in time and space, in which all K'kree who ever were (or will ever be) live. it is a single, immense prarie, on which all can live in complete peace and harmony, under a divine Steppelord who rules over all equally.

Each mortal K'kree is a living embodiment of his respective divine counterpart, born into the world for the dual purpose of carrying forward the divine plan for this shadow world, and of testing the individual's worth. These divine K'kree become mortal once, live out a lifetime in this universe (which is but an instant in their own), and then return when their part is done. The way in which they stood up to the trails of this universe determines their standing in the other.

Details of these concepts are hard to translate to the human mind. There seems to be little concept of a "good" life or an "evil" life, or of rewards or punishments handed out for conduct. Ethics and morals are not so much the object of judgment as the ability of the individual to play his part without complaint, doing what needs to be done. In many respects, these religious concepts can be acquainted with certain philosophical teachings of Terra's ancient Greek and Roman cultures, particularly certain Plato's doctrines (see especially *The Republic,* Book VII) and some aspects of stoic philosophy.

That the K'kree believe themselves to be reflections of divine beings in temporary mortal form is an interesting concept. It is the basis for their extremely rigid dislike of other races, for the K'kree religion makes no provision for non-K'kree in their paradise world. Thus, all non-K'kree they meet, no matter how intelligent, are of the shadow world (our universe) alone, and hence inherently inferior. Yet the K'kree know themselves to be mortal in this life; their divine essence is no more and no less immortal than the human concept of the soul.

The shape of the divine plan for for this "shadow world" in which the K'kree live out their mortal lives is also an interesting one. The closest approximation to the K'kree belief possible in human terms (and the approximation is by no

means exact) is that the K'kree come into this world to shape it into a new paradise, into which some other people will eventually emerge and, in turn, descend into another "shadow world" to shape its progress towards paradise. It is an infinitely repeating cycle of creation through a multitude of universes. Just who is to inherit this universe is hard to say; some K'kree writings seem to indicate that it is another race of K'kree, but a few translations could be interpreted to mean that it is some K'kree client race that will ultimately emerge as the "divinities" who will descend into the next shadow world from ours. This would seem to be at the core of the K'kree efforts to shape certain subject races into a pattern conforming with their own ways. All other shadow races are, of course, nothing but obstacles in this life to be overcome.

K'kree religious belief, at least among the leaders, was badly strained by the results of the Hiver-K'kree War. In that war, the Hivers threatened to use psychohistorical techniques to undermine the very fabric of K'kree society...and they offered convincing proof of their ability to carry the threat out. This was clearly at odds with the concept of the divine plan. The K'kree backed down from the conflict, but the details of the true nature of the conflict were never made public. A certain weakening of the faith in the upper classes of K'kree society seems to have taken place, but their conservative nature made the idea of religious innovation unthinkable.

By and large, today's K'kree still adhere strongly to the faith, though belief is weakest among the upper classes. The practical aspects of the religion—the influences on behavior—are largely independent of actual belief in the principles of the religion itself. K'kree are encouraged to be stoic, obedient, willing, and to live their lives in a way that will bring them merit (by accepting and overcoming everything that life throws in their path).

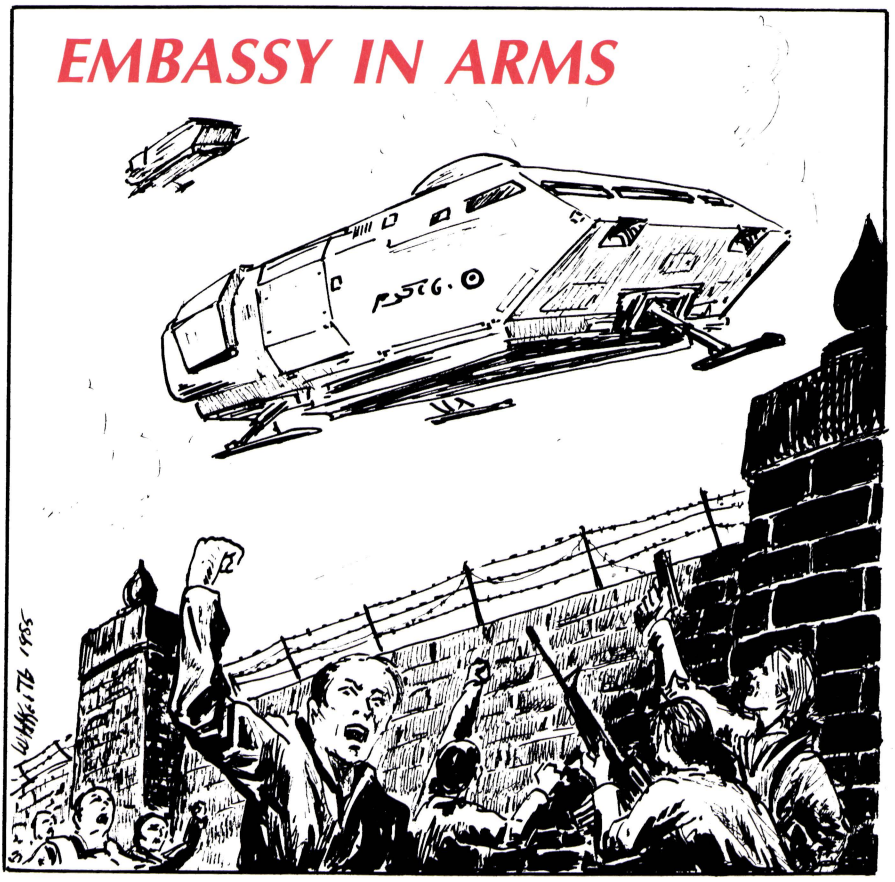
Religion is a fairly private matter; as was mentioned before, worship is not as important to the religion as living a life in accordance with the principles of the faith. This is reasonable when one considers that the K'kree deities are the K'kree themselves, and anything paralleling worship or veneration of a "patron deity" is a highly personal and private matter indeed (one of the few uses of the concept of "privacy" in K'kree culture).

There are many aspects to the K'kree religion which cannot be explored here. Players portraying K'kree groups are encouraged to keep those concepts in mind, and to think of how they affect behavior and action for a K'kree character. Many members of the Merchant caste (and a few Nobles) are theologians; they write on a variety of speculative religious topics, theorize on the nature of Paradise or the lesser shadow worlds, and so forth. Such theology is strictly a part-time pursuit, a hobby; there is no organized K'kree church structure or true priesthood. Still, theologians of note (throw Education *and* caste or less for a character to be noted in this area, with a basic DM of +8, and a DM −1 for each term of military service) are well-respected, and accrue benefits from their station (reduced meal prices, invitations to other worlds, free rooms), similar in nature to the human Travellers' Aid Society.

A character could also announce his intention to become involved in theological speculation; in this case, roll on the **Traveller** reaction table (unmodified) once each year. A favorable reaction indicates the acceptance and respect of the individual as a teacher and philosopher, with the specific benefits as indicated above.

— *J. Andrew Keith*

EMBASSY IN ARMS



Players' Information

Aramanx (Aramis 0605 B-657974-6) is a balkanized world at the edge of the Towers cluster of the Aramis subsector. The world is divided among eight major (and at least twenty minor) mutually hostile nations. Its population of 1.6 billion people is poised on the brink of a shattering world war, and sporadic conflicts are almost constant on the world. The "Powderkeg of the Towers Cluster" currently enjoys a state of comparative peace (or rather of watchful tension) which could end abruptly at any time. Though raids and border clashes do occur, no nation seems willing to go over the edge into all-out war...yet.

Sternmetal Horizons LIC, an Imperial megacorporation, has been backing the expansion of one of the world's smaller but more heavily industrialized nations, Lovrenyi. Sternmetal has invested heavily in the nation, and introduced a small but well-equipped mercenary contingent to supplement the Lovrenyi armed forces. Their intention is to help Lovrenyi

Amber Zone

unify the planet into a single government, heavily indebted to Sternmetal. The world could then be forced to accept terms favorable to the megacorpora-

tion's complete domination of the local economy.

This plan, which has been in progress for some time, has proved ultimately unsuccessful. Lovrenyi extended their frontiers, and coerced several nations into their sphere of influence, but ultimately became bogged down in a guerrilla war in one of their recent conquests. This threw off their timetable for conquest and gave other nations on Aramis a chance to hire off-world mercenary forces of their own.

One nation, the republic of Lanx, has obtained the services of a battalion of Vargr corsairs, part of the Kforuzeng band. These mercenaries, equipped to tech 10, have been employed in a number of strikes and border raids, and are the best military unit available to Lanax.

Recently, tension between Lovrenyi and Lanax has increased, as a result of civil unrest in Lovrenyi. Units in the service of the Republic recently crossed the Lovrenyi frontier, and there has been a surge of anti-Lanaxian fervor among Lovrenyi's volatile citizenry. Riots have been staged in Lovrenyi's capitol city, focussed primarily on the Lanax embassy compound. Forty citizens of the Republic, four Kforuzeng security specialists, and a Kforuzeng Emissary have been virtually cut off from the outside world by these rioters, who maintain a veritable state of siege. While the Lovrenyi government officially deplores the crisis, they are doing little to discourage the rioters beyond setting up roadblocks to limit the rioting to the area within a few blocks of the embassy compound.

The embassy guards are armed and prepared to resist attack, but it is a potentially dangerous situation politically. Almost any move Lanax makes could trigger a conflict no one wants. Even sitting tight and waiting the crisis out could be catastrophic, because public opinion in Lanax won't stand for an appearance of weakness in the face of such repeated and flagrant humiliation of the Republic's citizens in Lovrenyi.

One solution is, however, possible. If an evacuation of the embassy compound could be carried off rapidly and without a major confrontation, *and at the instigation of someone other than the Republic,* conflict might be averted. The Kforuzeng mercenaries have a stake in the situation as well; five of their members are in the compound too. A Lanaxian government official has quietly approached the Kforuzeng with this idea: let the Vargr mercenaries mount an expedition, as if on their own, to rescue their members, and pick up the embassy staff as well. Lanax could officially deny knowledge of the plan, and would have to take some punitive measures against the Vargr responsible. These measures would be for public consumption only, however, and have no real effect (and a good deal of cash could change hands under the table, placating those who have to endure public punishment).

The operation must be carried out quickly, however, with no loss of life, and a minimum of actual combat (ideally, none at all). The Kforuzeng should get in, secure the compound perimeter against possible interference from rioters or Lovrenyi troops, and then get the embassy staff out. Following this, a rapid withdrawal, again with minimum contact from the opposition (and minmimum fatalities), is to be carried out.

Referee's Information

This adventure is, of course, for Vargr characters, specifically those in Kforuzeng mercenary forces. (It is possible, of course, to adapt the situation for human characters instead.)

There are several ways the adventure may be set up. A group of characters can

participate in the action, perhaps as part of a special force given some specific mission in connection with the raid. Beyond that, it can be considered a Mercenary ticket, using the procedures outlined in **Traveller** Book 4, *Mercenary* to mount and resolve the overall operation. Finally, it would be possible to use the situation as a backdrop to a battle or series of battles using the *Striker* miniatures rules system. Any of these would be equally valid for the situation.

The Kforuzeng raiding force consists of six G-carriers, each mounting VRF gauss guns. A total of forty troops are present, the remainder of the space on the G-carriers is for carrying away the rescued staff. Equipment is tech level 10 standards, per the *Mercenary* rules.

The capitol of Lovrenyi is 270 kilometers from the border with Lanax; a 3-hour flight will get the rescue mission to the city. Detection gear on Aramanx is not generally very good, but there is a small chance that the rescue force will be spotted (roll 2D for 8+).

Once the flight is completed, the rescue force can reach the embassy compound with comparative ease; the locals will, however, be alerted to their arrival if they have been detected in their approach, or if they are seen landing in the compound (for this last, roll 2D for 5+, DM −4 if landing at night).

It will take 1D × 30 minutes to get an evacuation organized, but only half that time will be taken up loading the G-carriers. A small party might be sent ahead to get things organized.

The rioters will react in 1Dx10 minutes to the discovery that an evacuation is being organized. Disorganized civilian forces armed with tech 5-6 weapons will then storm the compound without effective leadership or coherent objectives (the rioters are treated as Recruit Militia in *Striker* terms). If fighting occurs with these rioters, units of the Lovreni army (a brigade of mechanized infantry conscripts is presently stationed in the capital) will arrive within 1D/2 hours.

It is left up to the referee to map the compound and to flesh out the basic considerations presented here. A successful withdrawal will depend upon the success of the raid itself; a force can attempt to intercept the raiders on a roll of 6+ once each hour throughout the 3-hour flight home. This could result in further clashes using whichever system the referee wishes to employ.

—John Marshal

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And don't miss **L.A. ORIGINS '86,** July 3rd - 6th at the Los Angeles Airport Hilton Hotel, and **GATEWAY 1986,** August 30th - September 1st at the Los Angeles Airport Hyatt Hotel. To pre-register or for more information, contact:

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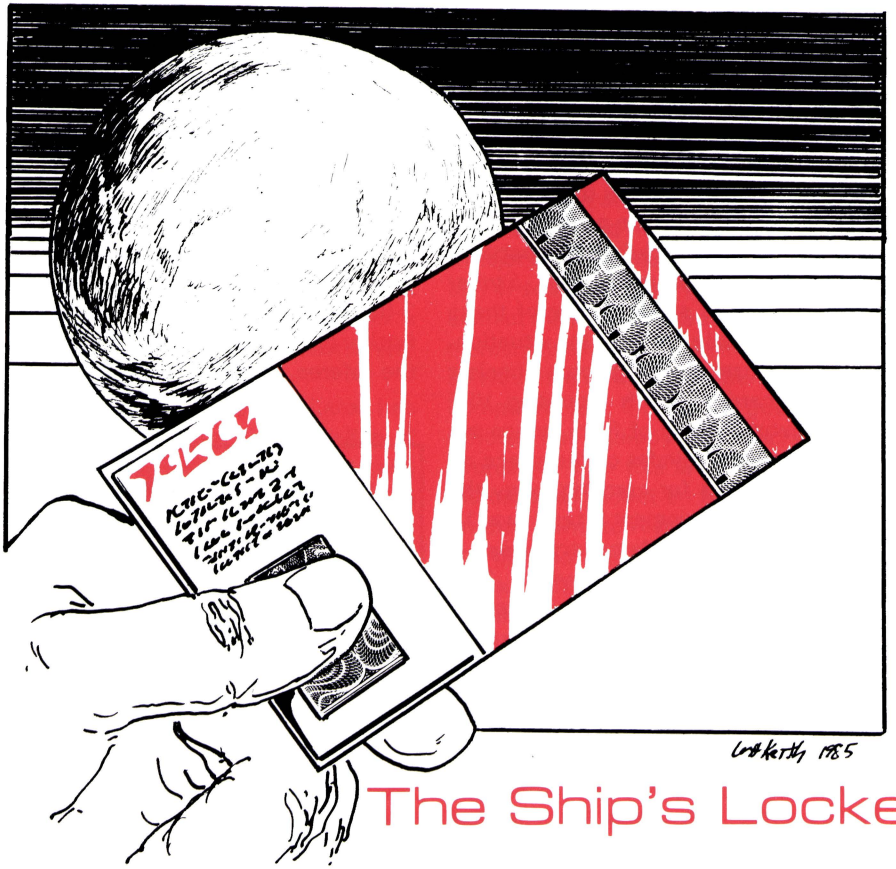


The Ship's Locker

THE CREDIT CARD

In the universe of **Traveller**, there is no interstellar communication faster than the normal mode of travel. This poses a problem for the interstellar banking organizations.

Part of this bookkeeping nightmare has been solved by the Imperial Standard Credit Card (ISCC). This credit card is in reality, a portable bank teller. It contains a micro-processor unit which keeps track of the account contained within and solves the problem of having to report back to the bank its owners balance status. The card also contains the information which is cross-referenceable with other personal identification.

The card is nearly tamper proof, requiring at least an individual with Electronics-5 and Forgery-3 along with several million credits of rare electronic equipment. Even then, tampering is not necessarily successful and the bank will catch up with you eventually.

Most of the time, tampering results in the "blanking" of the card. The bank can usually detect such attempts due to the automatic recall nature of the reader machines in credit registers.

It should also be noted also, that the bank has done a statistical analysis on the required degree of tamperproofing to provide lower loss than investment in the "crediting" of the card.

The card contains a thumb-print (left or right as the case may be) actuator. Within is also contained a record of the owner's retina print which is required for verification on all major (over Cr100000) transactions with the card.

The card is accepted in most systems of TL 13+. In such systems, purchases are sped up through this card's use and take only the time to do a quick retina scan in a credit register's sensor. The *Traveller's Aid Society* accepts the use of the credit card in all of its facilities for cash advances or other services.

The iridium edition of this card is available only to millionaires and contains the owner's DNA code allowing for positive proof identification and practically unlimited reliability of credit. Starships have been purchased on these cards!

The *Traveller's Aid Society* issues, for a modest Cr10,000 lifetime fee, a similar TAS services card. Zirunkariish (the banking megacorporation) charges a 1% fee which is deducted upon "crediting" for both editions of the card.

These cards are made of plasteel and are virtually indestructible. The loss or accidental destruction of these cards can be somewhat an administrative hassle. When a loss is reported, the responsible bank issues a credit update notice which goes out over X-boat carrier or other mail couriers. Steps are taken locally to minimize financial loss.

The card with its transaction information is useless until the process of verification is complete. This is based upon the span of use for the card in the user's transaction history.

If the transaction records support the lack of extensive travel in recent times, the process of account verification is relatively quick.

If records do not support the lack of extensive travel by the card-holder, the process of verification takes longer. In all cases, this verification time is equal to approximately three times normal communications time across the established area, the size of the Imperium being the maximum region of access. This maximum period of verification in the Imperium is 7 years.

Wiser persons have opened two or more accounts to avoid virtual disaster from loss or theft. In extreme cases, some have had a surgical "implant" placed in the hand or other convenient part of the body to reduce chances of recognition by thieves.

— *Leroy Guatney*

REMOTE PILOTED RECONNAISSANCE UNIT

This device, the RPRU, is also known as the Spy-Eye. It is a sphere, about 50 cm in diameter, whose surface is studded with lenses, microphones and other detection devices. Its "senses" will be treated in order. Its visual equipment is very diversified. It carries a TV camera for ordinary light, equipped with a 1-10c zoom capability, and with an image enhancement device, giving the camera the capacity to work with full efficiency in environments which only provide limited illumination (starlight is sufficient). The RPRU also carries a camera which is sensitive only to the infrared part of the spectrum, and thus can detect objects by their heat emissions. Finally, the RPRU is equipped with four TV cameras that are placed in such a way that the RPRU is capable of looking in all directions simultaneously. This feat is achieved through a limited use of fish-eye lenses, which give slightly distorted pictures. These four cameras have no magnification.

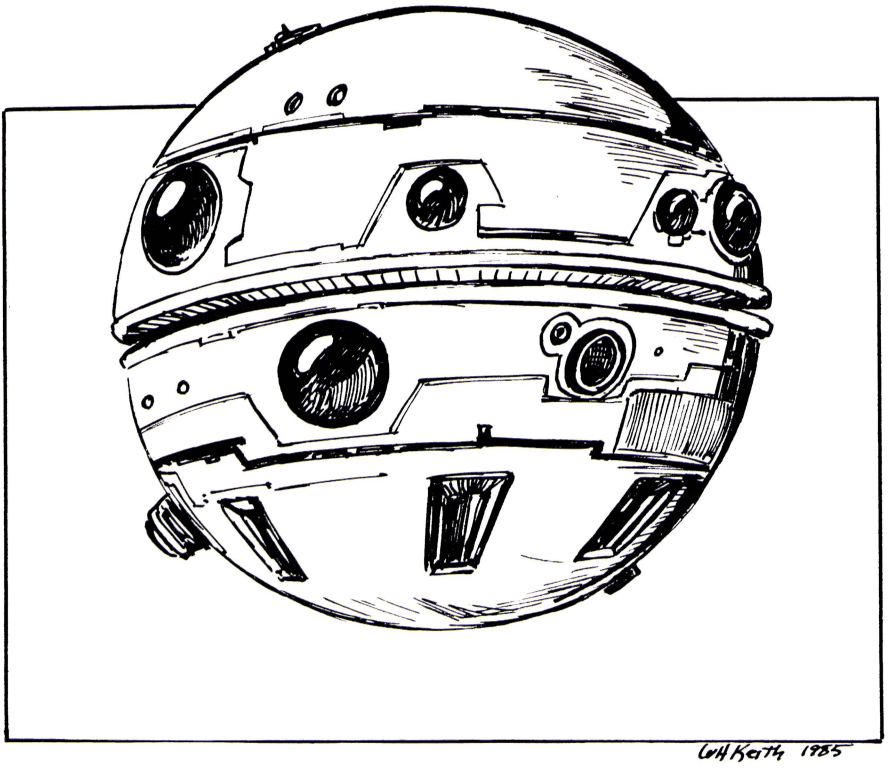
The sound detection capabilities of the RPRU are equally wide-ranging. It has a general microphone providing reception of ordinary sounds, with prestanda only

slightly better than those of the human ear. Further, it has a directional microphone which is capable of eavesdropping on conversations up to fifty meters away (depending heavily on the noise level of the environment). It carries a microphone receiving sounds in the 20-100 kHz range. These sounds are converted by electronic means to lower frequencies detectable by the human ear.

The RPRU also carries an olfactory organ: a very advanced atmosphere tester, capable of detecting gases to such a low concentration as 1 part in 100,000. It is capable of tracking by smell like a dog (although it is not quite as good as one). The RPRU is propelled by a gravitic unit, with a maximum speed of 200 km/h in normal flying and 60 km/h when flying NOE. The device has a maximum flying time of 5 hours.

The RPRU is controlled through radio. When flying within the line of sight of the operator, it is guided through a maser beam, which is extremely hard to detect. In other conditions it is guided on UHF frequencies. It will send its information back by the same technique that is used for guidance. The maximum range for the RPRU's UHF sender is approximately 30 km.

The RPRU is controlled through the Control and Reception Unit (CRU). This



consists of a control panel, a display, two loudspeakers or earphones, and three TV screens. The CRU is small; it can be contained within a businessman's case.

The RPRU and the CRU are produced on TL 12+. The RPRU weighs 25 kg and costs 75,000 Cr. The CRU weighs 5 kg and costs 15,000 Cr. The devices are frequently used by forward observers of military forces since they provide the capability of recon very close to the enemy lines with little risk for the operator. To reflect this with game terms, possession of at least one skill level of Forward Observer is required to efficiently utilize the RPRU. Further Forward Observer skill levels should be reflected as positive die modifications at the referee's discretion.

When using the RPRU in a game situation, the referee should keep in mind that the device moves silently and has no detectable heat emissions. All its detection systems are passive and cannot reveal it. The weak point is the guiding. The maser beam is difficult to detect. It usually requires direct interception. The UHF communication is clearly detectable by the enemy. To counter this, the RPRU can be put in a passive mode, when it only receives signals from the controller, but does not return any information. It can also be ordered to perform a movement from one place to another without continuous guidance. When it reaches its destination, it will inform the CRU by a very short signal. If the controller tries to attempt such a maneuver while the RPRU is flying NOE, roll 2D6+ to avoid a fatal mishap during the movement.

When using the *Striker* combat system, the RPRU receives a DM−2 for to hit rolls due to its small size. It is considered to carry mesh armor. It has five systems that can be affected by damage: sight, hearing, smelling, propulsion and communication. A light wound will knock out one system. A serious wound will knock out three systems. A death result will destroy the RPRU. The referee will have to determine randomly which system will be affected. If the visual system is destroyed, NOE flying will become impossible. The controller may order the RPRU to fly straight towards him, and he will then be able to land it safely when he can see it. Destruction of the audio and olfactory systems will deprive the RPRU of their sensory inputs, but that will usually not be a significant complication. Destruction of the propulsion system will cause the RPRU to crash, which usually, but not always, will cause the destruction of the whole unit. The referee's discretion must prevail here. If the communications system is destroyed, the RPRU will be lost. It will simply stop its actions and slowly descend to the ground. There it will remain inert until salvaged.

A damaged RPRU can often be salvaged and repaired. The costs for a reparation must be determined by the referee in each case.

— *Anders Blixt*

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DATA FILE: Notes on Information Sources in Traveller Campaigns

INTRODUCTION

In any reasonably complex **Traveller** scenario, one of the most important elements must be the availability of significant information (including false data, misleading facts, half-truths and cryptic or ambiguous clues). It is therefore important for the referee to have a clear idea of what sources of knowledge are available to the characters. Such sources generally fall into two categories, which can be termed *closed* and *open. Closed* are patrons and other NPCs with unique knowledge, inscriptions on archaeological remains that the player-characters dig up, diaries found on drifting derelicts in deep space, obscure rumors, and all the other oddities which lead the players on in pursuit of something that they believe no one else may have found. *Open* sources are libraries, public computer files, known experts on a subject, and any other "databases" that anyone can use (albeit for a fee or with difficulty, but freely nonetheless). *Closed* sources are the key to any scenario (except some where the characters are simply hired to perform some action), and therefore such must

be handled specially by the referee, but clues provided by such *closed* sources may often require interpretation. For example, the rumor that there are lanthanum deposits on Wypoc is only useful if the players can find out where Wypoc is. In some cases, the referee can provide such interpretation, on the grounds that the background information is common knowledge ("Everyone's heard of Wypoc—it's about three parsecs coreward of here"), but at other times, the players may have to do some research. This article discusses the various forms that *open* sources, to which researchers can refer, can take on different worlds.

LIBRARIES

The classic open database is a collection of books, scrolls, tablets, microfilms, or similar—the library. Libraries will exist in any culture above the stone-age primitive (government or tech level 1+), will be substantial in any society large enough to support major collections (population level 3+), and will be fairly comprehensive in any culture capable of printing or analogous mass-copying methods (tech level 2+). The appearance of computers at tech-5 will allow improvements and refinements to catalogues, with more and more of the indexing and storage performed by such machines as libraries evolve into full-scale database systems, which are discussed in the next section.

The most primitive libraries will be private collections or the property of small organizations or government departments; in such cases, access depends on the characters achieving good relationships with the collector, college, ministry, or whatever, and in bypassing any restrictions that may be applied; this can involve the use of skills such as Bribery, Admin, and even Carousing. Governments of types in the range 2-9 will generally consider it a worthwhile public service to provide public libraries to which anyone can refer, at least in normal working hours and on payment of a nominal fee in some cases. Governments of type A or higher also usually hold libraries, but tend to be careful about what information is available, and will censor anything held on "public shelves" (fiction and nonfiction). Access to data that a government specifically restricts is a tricky business, requiring anything from Admin or Bribery skill to full-scale espionage.

The quality and quantity of data held in a library depends on three factors. Firstly, the efficiency of information gathering depends on the local tech level, particularly with regard to scientific data; characters will have trouble researching molecular biology on a tech-3 world that is incapable of producing electron microscopes or performing X-ray crystallography, for example, unless they can get hold of imported books. Secondly, the size and nature of the library; private collections may reflect the eccentricities or the age of the owner, even if they can match university libraries for sheer size, while only rare "copyright" libraries (such as the United States Library of Congress or the British Museum Library, where a copy of everything copyrighted in a particular country must be deposited) are ever likely to be anything close to comprehensive on a wide range of topics. Third and last, there is the degree of contact between the world and the rest of the galaxy. Any planet within the Imperium, with a type D or better starport, and with a government or local business community even faintly interested in technological progress, will generally have some kind of collection of imported reference works, reflecting the latest Imperial knowledge in most useful fields. Any world with a type A starport that is not more than three or four parsecs from other popu-

lated worlds will have a fairly complete collection of factual, speculative, and fictional works somewhere. On the other hand, an interdicted or remote planet with a low or middling technological base will be largely limited, in its stocks of knowledge, to what its own population can have discovered; in such cases, the possibility of false information is significant. (An obvious possibility here is for players with access to starships to try trading in information—not a bulky or fragile commodity—to off-beat worlds. Risks, apart from the usual one of competition, include that of local governments seeking to eliminate threats to the status quo. New ideas are dangerous.)

A final consideration when researching in libraries is that of indexes. The information may all be there somewhere, but finding it can be a major task if it is not properly cross-referenced. The quality of catalogues, filing systems, etc., is dictated by the skill of the librarians, the concern displayed by the library owner, the size and complexity of the library, and the power of the tools (computers, microfilm gear, etc.) available. State-owned and academic libraries usually receive sufficient care and money to make the indexing system as good as available technology allows; privately owned libraries may be very good, very bad, or very peculiar in this area, while the easiest to catalogue—and so to use—are fairly small, highly specialized operations (such as libraries devoted to a given subject, or to serving a group of people with highly specific needs, such as journalists).

COMPUTER DATABASES

Computers first appear at TL-5, and at even this primitive level, they can prove useful for ordering and managing libraries. By tech-6, systems can hold, and rapidly display, quite large quantities of data, and may be used for specific high-speed information storage functions; such facilities expand as the quality of peripheral equipment (document readers, microfilm retrieval units, high-density storage media such as magnetic disks or holographic crystals, terminals, etc.) increases with tech level. A major difficulty, however, is that of transferring large volumes of text from media such as printed books to the computer's memory, and this leads to the increasing use of computer-related storage as the primary medium for information. By tech-8, most publishers store new books within computerized typesetting systems as part of their normal activity, and many academics keep details of their researches on computer. By tech-9, such systems can be increasingly integrated and rationalized. Thus the traditional "library" eventually ceases to exist, save as a collection of antique curios; characters seeking information have to refer to databases. At tech level 15+, "librarian" computers with a degree of independent consciousness and fully developed voice-recognition and translation capabilities make any available data accessible to simple spoken requests.

The significance of this in **Traveller** game terms is that research is much easier (and perhaps less fun) in large, high-technology societies; the generic "public computer terminal" can indeed be found in the corner of the hotel lounge. In the most advanced systems, cross-referencing access programs allow characters to pursue the significance of isolated or apparently unrelated items by cross-referencing keywords. Even where such facilities are not immediately

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available, persons with computer skill can achieve a great deal with an afternoon to spare and a terminal at hand. The only possible problem is that computers can monitor their own use, and may even be programmed to "watch out" for inquiries on a given topic. Any government of even mildly authoritarian tendencies may do so (roll government type or below on 3D for the characters to be noticed by a monitor program if researching sensitive data through a public net; DM of any computer skill deliberately applied), and private individuals and organizations may (referee's decision) be in a position to make some such check.

One well-known example of a computerized large-volume database is the "library data program". This would in fact consist of two elements; a simple but fairly powerful index/reference program, and a large set of data files, plus associated index, most likely stored on a separate unit, such as a holographic crystal or a portable magnetic disk. The actual programming work involved is fairly minor (see the standard rules on writing programs), but the data itself has to come from somewhere. In most cases, it can be purchased (for about Cr2,000), or extracted from a public database by the programmer (at a nominal cost for access time of 1D × 10 Credits). It is recommended that the files be updated with the latest available information once every six months or so, lest the users find some essential recent news missing. This requires an update cartridge (Cr10 × 3D), or an afternoon on the public terminal (Cr3 × 1D) and computer skill.

ASKING THE EXPERTS

There will eventually come an occasion when the players are seeking some datum so mind-wrenchingly odd that the local library cannot help them, or its index proves inadequate. Alternatively, they may find that what they really need is a complex analysis of the facts in hand, and no computer available is up to the task of the cross-referencing involved. At such times, the only answer is to find an expert.

Experts come in all shapes and sizes, ranging from the university professor, through the amateur with unique hobbies, to the crazy old navy veteran found hanging round the bar who's been where no one else has. The one thing they all have in common is that they are all individuals, with minds and personalities of their own. In extreme cases, they may act as patrons, or actively oppose the player characters. In all cases, much must rest with the referee's judgment, but a few principles can be stated.

The most important factor to determine is the price of the expert's services, in the broadest sense. This need not mean a fixed monetary fee, but it does always mean that there should be some motivation for the expert to provide his or her service. Not everyone demands cash down, but even an altruistic individual receives the satisfaction of the act when providing some service. If the expert's personality is not predetermined, a reaction roll is an obvious necessity, and the result given should be interpreted with care. A poor roll—a possible or definite attack—will generally mean that the expert finds the questioner to be a nuisance. While few experts are the sort of people to wade in physically, most are capable of touchiness or verbal abuse, and some—senior university staff, for example—may be able to call on security guards or the like to remove the source of irritation. A middling roll (some degree of neutrality) will leave the questioner with an exercise in diplomacy (making Admin or Liaison skill useful), but should generally allow the desired result to be achieved at a price,

ranging from the cost of a drink or a good meal for some minor query through to the going rate for a skilled professional's time over weeks of research. A positive response will, at the very least, indicate that the difficulty of persuasion is lowered, and a result of "enthusiastic" could leave the expert thanking the players for suggesting such a fruitful line of research!

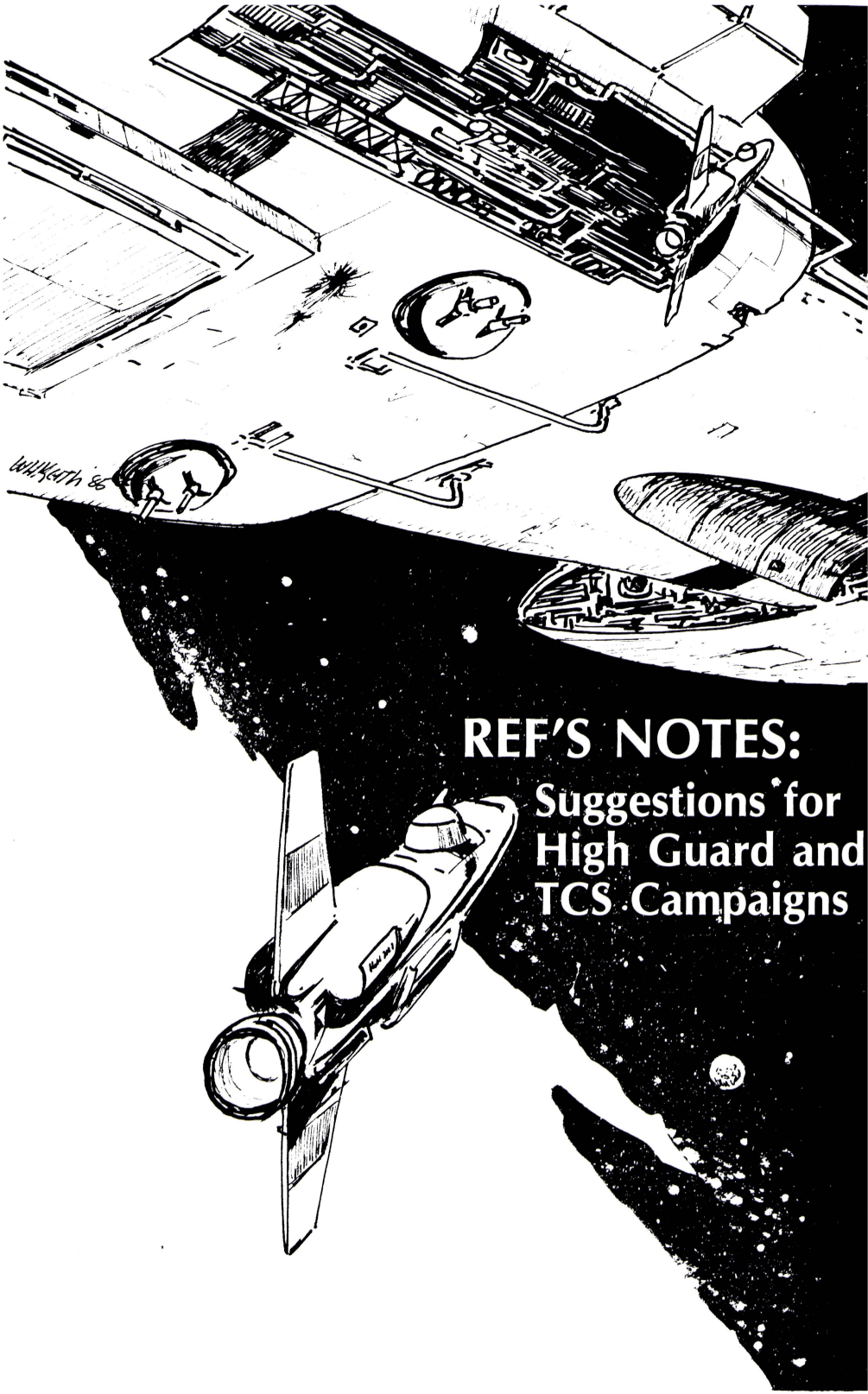
The main problem in all cases comes if the player characters have a need for secrecy. Most experts will promise this—for a further payment or incentive—if properly asked, but not all will keep their promises. Indeed, if the players are pursuing some really profitable line of inquiry, the intelligent expert may deduce their plans, and either demand a share of the "action", or set out to beat them at their goal. At such times, the expert ceases to be a simple source of information or analysis, and becomes a major non-player character, to be fully developed by the referee. Such "active experts" can best be represented by scientist characters derived as in Supplement 4, *Citizens of the Imperium,* unless their knowledge is in non-academic fields or (say) medicine, in which case a bureaucrat, noble or medic may serve the purpose best. Most dangerous for the players are senior academics and noble hobbyists seeking goals in competition with themselves, as such have power in terms of both physical resources and social influence. A respected figure in the scientific community can have a large expedition and the weight of the law on his side when trying to get a bunch of irresponsible adventurers thrown off a site of "major scientific importance".

A final class of expert to consider is the *paid sage*—someone who is so knowledgeable in a field of such widespread interest that he can charge on a fixed scale for services, and make a comfortable living in the process. These people may be called *sages* or *consultants* in different societies, and their main attribute is that their advice is given as a commercial service. Thus personal reactions are less important, but not totally irrelevant. Secrecy and rivalry can still be a problem, although professionals may have a written code of conduct in such areas, which will usually be obeyed.

CONCLUSION

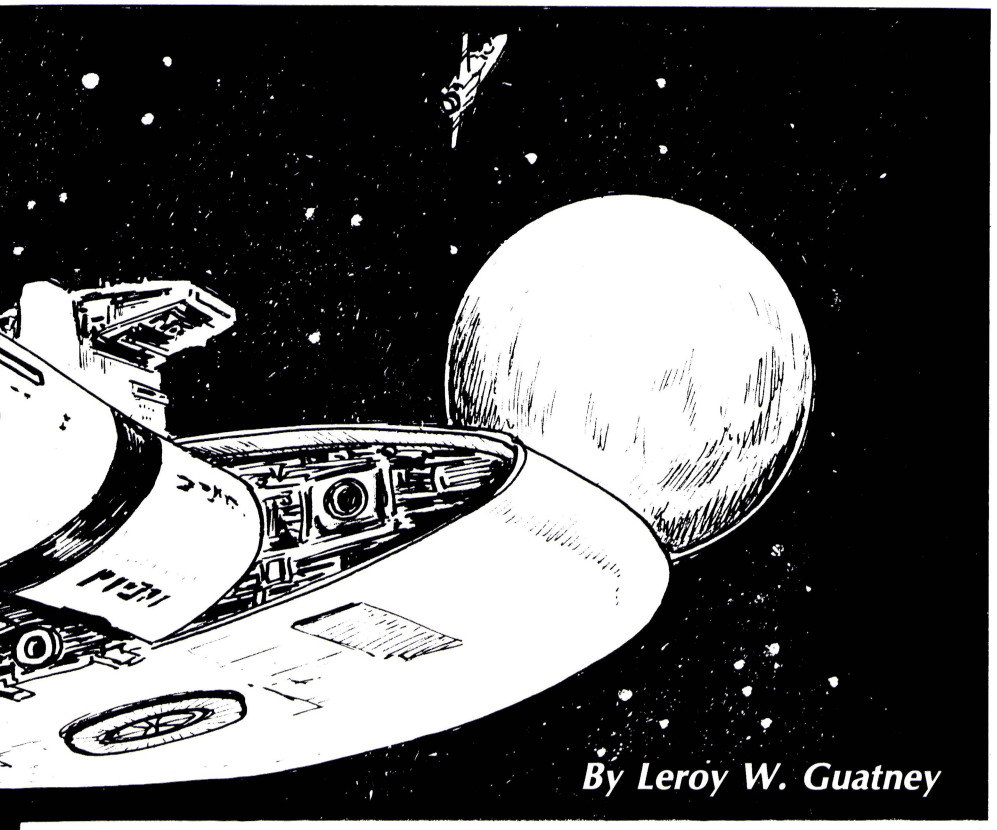
Information comes in many shapes and forms. Sometimes it is free; sometimes it can be a major problem — even an adventure in itself— to obtain. In general, **Traveller** adventures run most smoothly if most of the data obtained is found fairly easily, but referees should always consider questions of accuracy, availability and form. Libraries, databases and experts provide one of the many mechanisms whereby the players can be convinced that the adventuring universe is believable, complicated and generally an interesting place.

— *Phil Masters*



REF'S NOTES:

Suggestions for High Guard and TCS Campaigns



By Leroy W. Guatney

The second edition (1981) of *High Guard* has been out for nearly four years now. I'm embarrassed to admit that, prior to the summer of 1984, I had used it only for character generation and starship construction.

The starship combat rules seemed a bit too abstract for what I expected of my campaign. I had never sat down and completely read (let alone played) them, and I had allowed some misconceptions about the system to dominate my way of thinking. The group of players and referees that I have associated with were no better off.

After a quick but thorough study of the rules, I ran some practice combat sessions with designs which I had previously constructed. Those prototypes had served well to move players around involved campaigns (both mine and those I played in), but the designs were riddled with inefficiencies when it came to fighting for their lives.

A possibility was that since these designs were able to take advantage of such things as TL-15 build and other goodies that distinguish player characters from NPCs, the designs did not always have to be perfect. These advantages allowed brute compensation for lack of construction elegance.

After this evaluation, I concluded two things: First, the *High Guard* system was elegantly designed with construction rules neatly interacting with combat rules; second, I wanted to fully integrate *High Guard* rules into my campaign.

INTEGRATION

Those familiar with *High Guard* combat know that USPs (universal ship profiles) are used. Using these USPs it is possible to know at a glance the capabilities of the opposing ships, once you become practiced in reading them. In a campaign, this is not completely realistic. Therefore, I make only limited

portions of the USP available to players under certain limited conditions.

The USP is divided into 3 blocks. With the abilities of ship's sensors, I permit knowledge of only the first block (which covers size through crew). The only two factors of that block which may not be easily discernible are computer and crew size.

Crew size may be estimated from ship size (and is not all that important to the combat setting anyway). The computer is given away by the fact that combat considers relative computer size. It is not hard to estimate this from the first round of battle, and by that time, both sides are relatively committed to action.

When I consider a ship to be at ranges greater than those permitted by ship-to-ship combat, the only available information to the players is ship size, based upon various sensor systems examining the opposing ship(s).

After a few rounds of combat, the other two blocks are readily understood by opposing sides. The only exception to this is the armor factor. I simply don't call out to players all of the DMs in play and proceed from there.

Role play is integrable with *High Guard* if the referee is willing to take the time to describe events instead of just relating damage to the various systems. A fuel hit could be described as a kind of visual outgassing observed on the opposing ship. A computer hit could be described as a two or three minute dim-out of the terminals (representing the computer self-configuring to operate at a lower level or switching to fibre-optic backup).

I decided that it would be unfair to the players if I simply converted my campaign over to *High Guard,* so I gave them the opportunity to upgrade to new ship designs. This resulted in Anacreon II built on a 300-tón hull and including a Model-9 computer.

The *Basic Traveller* standard ship designs were not comparable with *High Guard* designs. Most of their USP classifications resulted in Agility-0 models which would just not cut it with *High Guard* designed pirates or player characters' ships out there. I chose to consider the old standard designs as exactly that: old.

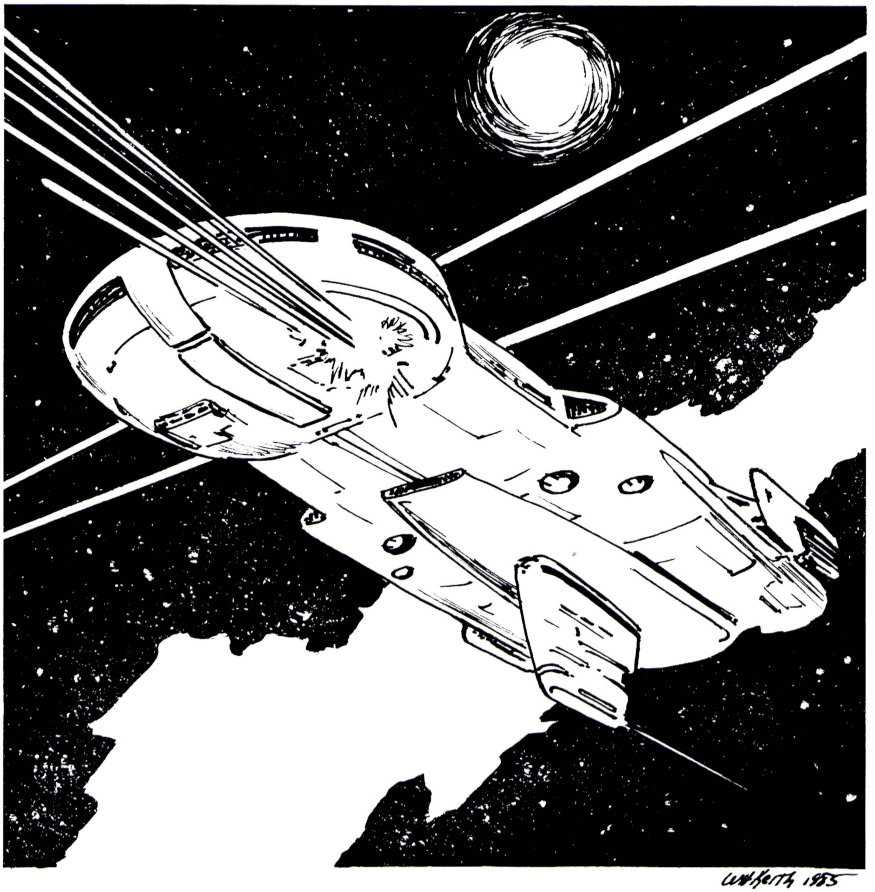
For simplicity, I considered them to be TL9-12 vessels which had been around awhile. For those classes such as the Safari ship or Mercenary Cruiser, the design had purposes other than space combat. The Safari ship is in reality another Yacht and is more suited for vacation or going to the grocery store. The Mercenary Cruiser is a troop transport useful for ground support operations. These didn't need the old rustbuckets classification.

Next, besides my own, I provided an education to my players so that they would know how *High Guard* operated. This was only fair. I don't run players on rules they don't know. It is simply not right to do otherwise.

After introducing this change, I had to develop some new ship designs. Since we know the Imperium has had TL13 (and up) for quite some time, I targeted that as my common TL for merchant ships and took off from there. I admit that I don't have all angles covered for new ship designs, but, I have laid down merchants and SDB's. Additional sources of *High Guard* designs could be found in other **Traveller** materials and of course I continued their implementation.

DESIGN STRATEGIES

Even before I had bought my copy of Adventure 5, *Trillion Credit Squadron* I knew the design of ships could be split between two types of components: *percentage* and *tonnage.* Percentage-based components such as drives would grow (or shrink) proportionally with the size of the ship. Tonnage-based com-



ponents such as computers would always be the same displacement, no matter how large a ship became.

If you approach ship design from the standpoint of performance, it is preferable to sum the percentages and then determine which tonnage-based components are needed. This means an estimate of the required crew will be needed establishing the number of staterooms installed.

When you have the two allotted quantities, the percentage being feasibly less than about 97% and the other being the sum of tonnages I call "payload," comprised of computers, turrets, staterooms, etc., you simply multiply the "payload" by 100 and divide by the quantity 100 minus the percentage. This gives you a number expressed in tons for the smallest ship size which will fit your list of required components.

If you like even numbers for ship size, then you can increase or decrease as needed, such things as cargo, extra ship systems, or any other appropriate item.

This technique will also work for Energy Point requirements. Just add up all of your energy point values for computers, weapons, and screens, multiply that value by 100 and divide by your power plant number. This number is the ship tonnage requirement for your power plant to produce enough energy to run

the specified systems.

Since your design's agility value requires EP which will vary for the size of the ship, simply remember that one factor of power plant will produce one factor of agility as long as the agility computed does not exceed available maneuver drive.

This approach turns the design process around in the event of laying down a ship to produce a specific performance. A bit of manipulation may be required with either of these two ways you go about building a ship.

The single aspect of construction to keep in mind here is the bridge of a starship. The rules say to allocate 2% of the ship's tonnage, but, a minimum of 20 tons is required. That means the bridge is a percentage quantity on ships 1000 tons or more and a tonnage-based quantity on ships less than 1000 tons.

When doing *High Guard* standard designs, you should remember that variants may exist. To address this, I decided on the drive configuration, fuel tankage, armament, armor, computer, and the crew which I would consider consistent to my "standard" design. Remaining tonnage could be variable in allocation. In the case of merchants, even armament and armor might vary.

This variable remaining tonnage I referred to as an "option." An option would consist of the added components to develop any variant designs. Continuing with the merchant example, I laid down a 200-ton ship design, which had a 75-ton option. The 75 tons could be specified as cargo, passenger and steward staterooms, maybe low berths or increased power plant to allow for armament.

Let's look at how this works out. Our Trader class vessel will be constructed at TL13, built with Jump-3, Maneuver-1, Power plant-3, and Fuel tankage to support one maximum Jump and four weeks on the power plant. These percentage based components give us 45% of the ship's displacement.

Making the ship 200 tons yields 90 tons used and 110 tons for the "payload." This payload will need 20 tons for bridge, 2 tons for the Model-2 bis computer, 5 tons for a one-fifth tonnage refinery, and 2 tons for standard turrets. The rules require a minimum crew of Pilot, Engineer, Medic, and Gunner. Two staterooms allowing for crew double occupancy are an additional 8 tons.

Of the 110 tons payload, we have only used 37 tons leaving a 73-ton option. I worked out six different variants on the basic design and had six new vessels for the work of a little more than one. Below, I list the items which specify the differences in the various options.

Option 1: AG1 Freighter 73 tons Cargo factor-5 Sandcaster Agility-1

Option 2: AG2 Freighter 51 tons Cargo factor-4 Sandcaster factor-3 Beam Laser 6 tons increased M-drive Agility-2 1 more Stateroom (Gunner+) 12 tons Armor-2

Option 3: AG3 Freighter 40 tons Cargo factor-5 Sandcaster 1 ton to make Computer-3 12 tons increased M-drive Agility-2, 20 tons Armor-4

Option 4: AM1 Merchant 48 tons Cargo factor-5 Sandcaster Agility-1 5 tons 10 Low Berths 5 more Staterooms (1 Steward)

Option 5: AL1 Liner 65 tons Cargo factor-5 Sandcaster Agility-1 8 tons 16 Low Berths

Option 6: AL2 Liner 16 tons Cargo factor-5 Sandcaster Agility-1 5 tons 10 Low Berths 13 more Staterooms (2 Steward)

Costs in MCr w/discount: AG1 89.54, AG2 96.54, AG3 102.34, AM1 91.94, AL1 90.18, AL2 95.14.

This produced six designs of varying abilities and cost. A factor-4 missile bat-

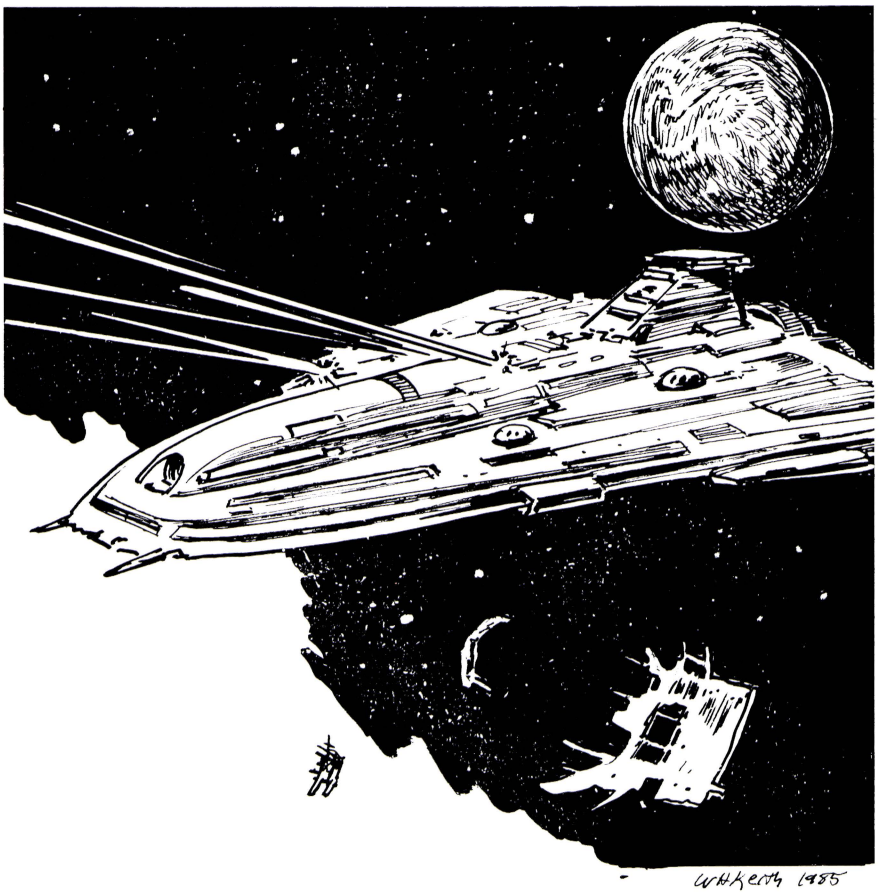
tery could easily be substituted for a factor-5 sandcaster battery increasing the cost by MCr2.4.

The AG series is not designed for passenger service and variants 2 and 3 are a little more defensible for operation in frontier areas. The AL Liners are intended for passenger operations in civilized high population centers and the AM1 Merchant is useful all around. The AM1 Merchant is the ship I give to Free Traders when generated by Special Supplement 2, *Merchant Prince.*

I based the design on a type-6 hull and will leave it to the reader to produce USPs or additional variants.

I also motivated player contribution of ship designs. Any ship designs they submitted which had a place in the scheme of things in my campaign would be available for the discounted cost and construction time of 80%. In other words, if the players came up with a useful design that made sense, it would be incorporated into the campaign as a standard design. They could also purchase at the discounted rate and might not have to wait for a shipyard to complete it.

As I mentioned above, the players' Anacreon II had a model-9 computer installed. Keep in mind that this has a major effect on combat, but, when designing ship types for day-to-day mercantile



use, cost is a major factor. Although a model-9 makes combat survivability higher, it should be remembered that a model-9 costs a lot more (in both credits and energy) than a model-1 bis. As a rule of thumb, I don't recommend designing a starship which uses computer EPs in excess of one turn's output of a factor-1 power plant for that ship.

Certain ship designs are exceptions to the above rule of thumb. An SDB is usually decked out pretty well because it is based upon high survivability and defense. There may be other such ideas to take into account when developing your standard designs.

TRILLION CREDIT SQUADRON

Having a copy of TCS is helpful, too, in that it expands upon *High Guard* even more. Additional design rules may be found there and it contains information on the squadron concepts. TCS also addresses the subject of annual maintenance, but this is listed as 10% the purchase price of a ship per annum.

Comparing this to the *Basic Traveller* annual maintenance cost of .1%, I decided to stick with the lower value, assuming the higher value to be related to higher expenses such as crew salaries, fuel, Cr7700 spanner wrenches which would normally cost Cr15, and the Naval requirements for maintaining bases.

The additional rules in TCS also tell how refits are done and define such added premiums as repairs and fuel tankage. All in all, I recommend TCS as well as *High Guard* for a better defined campaign setting. Buy it if you don't already have it!

STRIKER

Rules in *Striker* Book 2 provide for integration with **Traveller** and I have used them for incorporation of jump launchers and capsules as well as the design and specification of nuclear warheads for use with *High Guard.*

Striker says that starship missile turrets are 15 cm launchers, that starship missile bays are 25 cm launchers and that you should use the ammo for equivalently sized CPR guns. These computations lead to the following table for turret launched nuclear warheads. I leave it to the reader to do the same thing for bay ordnance. This table is intended to supplement *High Guard* starship combat.

WARHEADS

TL	*Yield*	*Cost*	*SE*	*Rad*
7	.1	7	−2	+4
8	1	16	−3	+3
9	5	56	−4	+2
10	5	56	−4	+2
11	10	106	−5	+1
12	10	106	−5	+1
13	20	206	−6	0
14	20	206	−6	0
15	50	506	−8	−1

In the table, TL is the tech level capable of production, Yield is the warhead's yield in Kilotons, Cost is in KCrs, SE is the DM on the Surface Explosion table and Rad is an additional DM to the Radiation damage table. Results of less than two are treated as two. You will note that the TL13/14 table value matches the rules stated for use of Nuclear Missiles in unmodified *High Guard.*

The normal damage table DMs still apply as given in the combat rules. All missiles designed to match the system give a USP factor of 9 or less. So, all missiles will have the +6 DM and will still have the DM for Armor. The SE DM just replaces item 3 of the list of DMs on Page 48 of *High Guard.* The Rad DM is in addition to those listed.

It should also be remembered that weapons USPs are rated by the number of launchers with one warhead per launcher. A triple missile turret would re-

quire three warheads and could have a reload capability of three additional volleys stored in the turrets themselves. Any reloads must be undertaken when the launchers and their reloads are exhausted. That means four consecutive rounds of firing could be maintained without the gunner having to reload the battery.

This leads to a price tag of more than MCr36 for a load of fully-armed factor-6 TL15 missiles assuming a TL13+ missile turret battery of six triple missile turrets!

Rounds of the appropriate size may be used in any launcher irrespective of tech level. The only difference between a TL12− and TL13+ ship with the same number of missile launchers (not counting Computer, Agility, etc.) is the TL13+ modifier of the latter ship's design and the tech level of the nuclear rounds carried by each of them.

An additional point to keep in mind is that nuclear missiles are not your standard off-the-shelf item in your local Instellarms either. In TCS this is not a problem, since the players represent governments who are presumed to be able to act responsibly. Individuals will have more trouble sneaking nukes through customs.

The destructive force of an explosion can be computed to give the increase in effectiveness based upon an increase in yield. That simply states that an increase in yield results in an explosion of less proportionate power.

The principle is a 2/3 power rule. If you double the yield of a bomb, you get 2 to the 2/3 power, or about 1.6 times more explosive force. That amounts to a 60% return on your 100% added investment.

It was this fact which lead my introduction of the above table for nuclear missiles in *High Guard* combat. I do not intend this addendum to replace the system for *Basic Traveller* starship combat or the rules provided by Special Supplement 3, *Missiles in Traveller* which appeared in *Journal* #21.

RULES CLARIFICATIONS

The motivation for having written this article was in the attempt to write a *High Guard* program package to produce ship designs and run combat in accordance with the rules.

This process resulted in about an hour and a half discussion with Marc Miller and led to my increased understanding about the game system's function. I have included some of the results of these conversations below, along with some of my own ideas.

The rules say to use 2D6 unless otherwise specified. We both think that a 1D6 is better for the initiative roll step in combat. In terms of fleet size for the DM to initiative, ships which can maneuver and fire means craft 100 tons or greater. Fighters and ship's boats are small craft and are not counted for this purpose.

When installing hardpoints and bays, the tonnage requirement per item is the minimum needed to allow its installation. That means, a ship from 100 to 199 tons is allowed one hardpoint and the minimum size ship in which a bay may be found is 1000. The rules for small craft mountings are the only exception to this and allow the fixed weapons of a small craft to be quantified for *High Guard* weapons battery classification.

The operation of a ship in terms of armament and energy allocation is defined at the time of construction. Any refit of ship's systems should be administered in accordance with the TCS rules. The only exception to this rule allowed during combat is the use of *emergency agility* (see below).

RECONFIGURATION

If a need is foreseen to change this operational configuration, it may be done

away from a combat situation, *not* during combat. The layout of starships includes the directing of power mains, ship's circuits through access conduits, etc. The engineering staff may rewire systems in 1D6 days time with −1 DM for each engineer assigned to these tasks with skill Engineering-2 or greater. A minimum of one day is required for changes, regardless of how many are involved.

These changes permit the operation of any system at equal or lower value than the USP factor laid down at construction time. This results in the appropriate energy consumption of that system at its new level of operation. For example, a meson screen could be powered completely down and the energy previously channeled into it could be used to increase the agility, if the ship's agility were not already maximum due to drive limitations.

Should this operational reconfiguration prove undesirable, the ship will have to get out of combat to change back and will require the same number of days to restore ship's systems that it took to reconfigure originally. No additional die throw is required to determine the time to return a ship setup to its design configuration, assuming the same number of engineers work on it as before.

It should be remembered that this change does not allow any differences in the construction parameters. The initial build of a ship requires enough EP to support those systems unless they are backups.

In addition, turret batteries may also be reconfigured with at least one engineer spending a half day per battery. If a ship has backup systems and their use is deemed desirable, the decision may be made to use one or all of them as the main units (taking virtually no time) lose the ability to switch to those backups.

The optional rules for powering down should be used if you want to reduce the factor of your power plant for fuel conservation.

To reiterate, *no* configurational changes may be made in combat. They must have been committed to prior to even having definite knowledge of a combat situation. If while undertaking such changes, a combat situation arises, the systems being operated on are unavailable for use. The use of emergency agility would of course be permitted.

EMERGENCY AGILITY

In emergency agility, the whole of the ship's power is diverted to the maneuver drive. The rules state that no energy consuming weapons may be fired, but the ship's computer and screens are operated without concern for energy.

The use of emergency agility places a strain on the drive system of a ship and is safely limited to use for a number of turns equal to the Mn or Pn, whichever is least at the commencement of use. Obviously, if either of those drives become disabled or has its USP reduced to zero, so is agility.

Each turn that the emergency agility is used above that limit, throw 8+ for a drive malfunction in accordance with normal maneuver or power plant failure to occur. After the above stated number of turns have passed, the ship's operation must run two turns as normal before the emergency agility may be used without the penalty chance for breakdown.

The agility modifiers for Pilot skill apply to emergency agility as well as normal agility. The emergency use affects the operation of the ship, not the nature of agility itself.

If a player should choose to use emergency agility and try to power the jump capacitors, the energy cost for the computer and screens (if any) have to be

paid before energy may be channeled into the jump capacitors. Excess EP not used in the original design of the ship may be channeled into jump capacitors at any time. In combat, the only other way EP may be diverted into the capacitors is by bleeding off EP from the ship's Agility with a subsequent reduction in that rating.

Keep in mind, the rules state that the power must come from two turns power plant output for a jump to be made in that two turn period. It may be reduced to one turn if there is sufficient energy available or the jump attempted is small enough.

My notion of the reasons behind this is that it is due to *lanthanum coil charge reduction.* If the two (or one) turn window is not observed, the energy is not lost, but, the danger increases the longer the jump is delayed. For each turn allowed to slip by for jump, apply a +2 DM to chances for misjump. It should be remembered that there is a maximum allowed EP storage in the jump capacitors as given in the black globe rules section in Combat and the force field paragraphs in the Construction rules.

For a ship to make a safe jump after a charge has been applied, but, the jump window has past, a new power plant output (one or two turns long) will have to be applied to the coils. This prevents the charging up of jump coils so that a jump may be made on an instant's notice. In addition, when any energy capacitor emerges at jump point, it is considered drained.

The *High Guard* combat system says that energy weapons may be used at short range only. This does not prohibit their use for missile battery defense, however. Remember, the +2 DM for their penetration is for attack and they are the same as lasers for this type of defensive use.

ANNUAL MAINTENANCE

The basic rules state that .1% the ship's cost per annum is required for preventative maintenance. Life support is required for low berth and stateroom passengers at Cr100 and Cr2000 per two week period respectively. I allow the players to pay life support costs for the next year as the time preventative maintenance is done. Life support is calculated at the maximum number of persons so travelling for a period of 25 bi-weekly periods, allowing one off for the next PM.

In the cases where a crew plans to go out beyond the limits of civilization, allowance is made to stock up on the supplies that the engineering staff will need to perform preventative maintenance. Certain larger vessels contain their own shop facilities and others do not. This is based upon the choice of the two crewing methods used for the ship type.

If the ship has been crewed in accord with the rules for vessels 1000 tons or less (*Basic Traveller* crew rules), it will require access to any starport type A-D of at least TL 7 for the appropriate shop facilities required to perform preventative maintenance. If this ship does not carry its own supplies, the tech level of the starport may have to be closer to the tech level of the ship. If the ship has been crewed as greater than 1000 tons, any flat spot on a world with a habitable surface will do.

The stowing of raw materials for preventative maintenance as well as life support requires 1% the ship's tonnage in cargo space for 5 years of preventative maintenance supplies, filters for freshers, food compounds, etc. The cost for these supplies is no cheaper than would normally be required at the annual preventative maintenance times. Each five years preventative maintenance

continued on page 42

JUMPSPACE

JUMPSPACE
JUMPSPACE

The central secret of JUMPSPACE interstellar travel is the concept of *jump space*. Without this method of travelling *around* intervening space, interstellar travellers would be restricted by the universal speed limit of 300,000 kilometers per second; the stars would be beyond the reach of most intelligent species, and even the limited travel that did take place would be slow, and relatively unprofitable.

jump space changes all of that. It allows travel at a velocity of up to six parsecs per week, making interstellar journeys of no more inconvenience than historical Terran sea cruises.

Jump Theory: There are several differing theories of jump space, and although jump has been used as a star drive for thousands of years, a precise understanding of jump is not necessarily a prerequisite; high quality data on jump space is difficult to obtain.

The basic concept of jump space is that of an alternate space. Theoretically, jump spaces are alternate universes, each only dimly understood from the standpoint of our own universe. Within jump space, different physical laws apply, making energy costs for reactions and activity different and imposing a different scale on size and distance.

The Physics of Jump: Jump is defined as the movement of matter from one point in space (called *normal space*) to another point in normal space by travelling through an alternate space (called jump space). The benefit of jump is that the time required to execute a jump is relatively invariant— about one week. If the distance travelled is greater than can be covered in one week in normal space, a gain has been made.

Entering jump is possible anywhere, but the perturbing effects of gravity make it impractical to begin a jump within a gravity field of more than certain specific limits based on size, density, and distance. The general rule of thumb is a distance of at least 100 diameters out from a world or star (including a safety margin), and ships generally move away from worlds and stars before beginning a jump. The perturbing effects of gravity preclude a ship from exiting jump space within the same distance. When ships are directed to exit jump space within a gravity field, they are precipitated out of jump space at the edge of the field instead.

Jump takes 168 hours (±10%) to complete. This time is related to the nature of the alternate space being travelled in, and to the energy applied. Where time is a variable in travel in normal space, energy consumption is a variable in alternate space; time is a constant. Consequently, distance depends on the energy applied.

JUMP EFFECTS

The major (and most desirable effect) of the jump drive is that users exceed the speed of light. Achievement of instantaneous movement would be too much to ask; even the existence of a form of instantaneous movement would produce grave theoretical difficulties which would ultimately be reflected in the realities of the real world. Instead, jump drive allows speeds ranging from 169 to 1,000 times lightspeed.

One of the benefits of the jump drive is its controllability: jump is predictable. When known levels of energy are expended, and when certain other parameters are known with precision, jump drive is accurate to less than one part per ten billion. Over a jump distance of one parsec, the arrival point of a ship can be predicted to within perhaps 3,000 kilometers (on larger jumps, the

potential error is proportionally larger). Error in arrival location is also affected by the quality of drive tuning, and by the accuracy of the computer controlling the jump; these factors can increase jump error by a factor of ten.

...jump drive is accurate to one part in ten billion.

The laws of conservation of mass and energy continue to operate on ships which have jumped; when a ship exits jump it retains the speed and direction that it had when it entered jump. Commercial ships, for safety reasons, generally reduce their velocity to zero before jumping. Such a procedure eliminates some of the danger of a high velocity collision immediately after leaving jump. Military ships and high speed couriers often enter jump at their highest possible speed, and they aim for an end-jump point which directs their vector toward their destination in the new system. Such a maneuver allows constant acceleration in the originating system, followed by constant deceleration in the destination system.

An additional complication is imposed on ships when the two star systems involved have a high proper motion with respect to each other. In that case, a ship must take into account relative velocity between the two, when computing speeds and directions.

Gravity has extraordinary effects on the function of the jump drive. Jump drive transitions to the alternate universes of jump space are severely scrambled within the stresses of a gravity well; the transition cannot usually take place within the stresses of a gravity well. When it does, the turbulence created by the gravity well makes the result unpredictable. In some situations, the ship is destroyed; in others, it merely misjumps.

On the other hand, there seems to be a built-in safety feature for ships trying to leave jump space within 100 diameters of a world. Ships naturally precipitate out of jump as they near the 100 diameter limit.

The biological effects of jump on travellers are negligible. Some individuals report experiencing nausea; there are increased reports of nausea and physical illness when a ship has misjumped; this increased nausea is considered a symptom of misjump.

Nearly everyone reports a momentary wrenching sensation at the instant of transition into and out of jump space.

REQUIRED ITEMS

An operating jump drive requires several basic components which, when operating together, make jump possible.

Power Source: Jump uses large amounts of energy to rip open the barriers between normal space and jump space. Normally, only a fusion power plant can supply this energy. Some alternate systems make use of solar power generators (which operate much more slowly), or anti-matter power systems (rare and very high-tech).

Energy Storage Nodes: Once power is generated, it must be stored until the instant of jump. Capacitors or large fast-discharge batteries fit this requirement.

Strong Hull: The hull of a starship must not only be constructed to withstand normal space; it also must withstand the rigors of jump space. Starship hulls contain as an integral part of their structure a network of wiring which maintains the jump field around the ship. Without this field, the natural physics of jump space would intrude into the ship interior. The alien physical principles would make life

impossible; operation of equipment unpredictable; even the passage of time altered. Breaks in the protective network within a starship hull are a primary cause of the loss of ships in jump.

The need for this network in a ship hull also indicates what happens to matter ejected from a ship while in jump. Anything (personnel, small craft, missiles) becomes subject to the physics of the current jump space. People die; equipment malfunctions; small craft disappear. Some attempts have been made to launch starships into jump space from other starships; problems in properly matching drive fields, or even turning them on near other ships, has shown that the technique is impractical at best, and probably impossible.

Computer: Jump drives have precise power requirements which can only be met if the power is fed under computer control. In addition, the calculations needed for a jump require a high level of accuracy.

Jump Coils: The jump coils that channel a ship's energy within the jump drive are constructed of *lanthanum*, a rare earth which has exactly the correct properties for the purpose. Lanthanum coils are used to control the drive energies during jump. Other materials have been used or substituted, but none function with enough reliability or efficiency to make them practical.

THE TYPICAL JUMP

The typical jump begins on a world surface when a ship prepares to leave. Completely fuelled and crewed, the ship leaves the world and proceeds to a point more than 100 diameters out. Trips are planned so that the ship reaches the jump point with zero velocity.

Along the way, the navigator has been preparing for jump using the computer. A jump destination has been selected, but the navigator must then select the most appropriate point in the destination system to emerge. A flight plan is prepared and filed with local authorities. The computer is fed the coordinates and controlling data. Final checks are made to assure that the ship is ready.

The captain on the bridge makes the final decision to proceed with jump. A short count-down and final check precede activation of the jump drive.

When the jump drive is activated, a large store of fuel is fed through the ship power plant to create the energy necessary for the jump drive. In the interests of rapid energy generation, the power plant does not work at full efficiency, and some of the fuel is lost in carrying off fusion by-products, and in cooling the system. At the end of a very brief period (less than a few minutes), the jump drive capacitors have been charged to capacity. Under computer control, the energy is then fed into appropriate sections of the jump drive and jump begins.

The drive's first function is to tear a hole in the fabric of space. The hole is precisely created and the ship naturally falls into the breach on a carefully directed vector. The drive then directs some of its energy to sewing up that hole again. The act of closing the hole severs the ship's ties with normal space and allows it to begin its jump.

The duration of a jump is fixed at the instant that jump begins, and depends on the specific jump space entered, the energy input into the system, and on other factors. In most cases, jump will last a week.

During the week in jump, the responsibilities of the crew are directed toward maintaining life support within the ship, repair and maintenance of some ships systems, and care of the passengers.

At the end of the week in jump, the ship naturally precipitates out of jump space and into normal space. The exact

time of emergence is usually predicted by the ship's computer and the bridge is well-manned for the event. Dangers of piracy, space debris, or equipment failure make it important for the ship to be ready for all eventualities at this point in time.

Once back in normal space, the ship proceeds with its business. Some may head for the local gas giant for refuelling, while others may proceed directly to the local starport on the main world.

SPECIAL TYPES OF JUMPS

Much of what is known about jump has been learned from an analysis of two special types of jumps: *misjumps* and *microjumps*.

Misjumps

When something goes wrong in jump, it is called a *misjump*. Some are simply equipment failures that, if properly understood, can produce better safeguards or higher efficiencies. Others, by the nature of their results, can shed some light on what jump itself is.

When a jump drive fails, it does not send the proper drive energies to the components of the drive. The usual result is catastrophic— then the ship is lost. Sometimes, however, enough energy is directed to the internal systems to allow entry into jump space, although not the one intended. Simple jump-1 ships have been known to achieve jump-36 in rare instances with this type of misjump.

It is this type of misjump that is used as evidence for a multiple jump space theory. Some believe that a proper understanding of the phenomena can produce jump drives capable of greater jumps than are currently available.

Contaminated Fuel: The contaminated fuel failure results in a ship's power plant producing less energy than predicted (in some cases, contaminated fuel may produce more energy than predicted). A ship committed to making a jump, but with insufficient energy for the planned jump, may find itself inserted into an unintended jump space.

Gravity Well Effects: Activating a jump drive within a gravity well usually destroys a ship. In rare instances, the ship survives, only to misjump.

A gravity well appears to distort the fabric of space and make normal predictions used in plotting jumps useless. The distortions in space make the jump space entered random or unpredictable. In some cases, the jump space entered is one that collapsed in the brief microseconds after the Big Bang— entering a jump space that is effectively a singularity destroys the ship immediately. The luckier ships enter a jump space that allows the ship to leave and return to normal space.

One effect of misjumps is a change in the amount of time spent in jump space. The many variables involved may make the time spent in jump space shorter or longer than normal. Ship crews can identify a jump as a misjump if it ends before the normal week is up, or if it continues longer than the week they expect.

Microjumps

Any jump of less than one parsec is considered to be a microjump. Sometimes, it can be advantageous to jump within a system rather than use maneuver drives. If normal acceleration and deceleration would take more than a week, a microjump is more efficient. At 1G, any distance greater than one billion kilometers would be more efficient using a microjump.

Microjumps can also confuse an observer or enemy. Because a ship's jump destination cannot be predicted, a microjump within a system still leaves an impression that the ship has left; a week later, it emerges from jump in the same system, to the observer's confusion.

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JUMP RESEARCH

In order for any culture to discover jump drive, it must have already met a few basic requirements, just as a culture cannot progress to an internal combustion engine without mastering metalwork.

The requirements for development of a jump drive include:

A Technological Civilization: Culture itself is not enough; a culture must have a mechanical civilization capable of machine tools and heavy industry.

Access Beyond the 100 Diameter Limit: Because a jump drive cannot function effectively within 100 diameters of a world, the culture must have achieved space travel and be able to conduct research beyond the 100 diameter limit.

Power Generation Capability: Fusion power generation systems (or an equally capable alternative) must be available or sufficient power for jump drives will not be possible.

Computer Technology: The control of jump drives is dependent on a high accuracy data processing system. Normal human processing is not sufficient to control the task, although some other races may have the right capacity. So far, every discovery of jump drive has made use of high accuracy, fast processing computers for controls.

A Motivated Genius: The theory and the achievement of jump drive is not obvious. Consequently, discovery of jump drives seems to depend as much on a single motivated genius as on the other technological prerequisites.

—Marc W. Miller

Using Your Model/1bis

Traveller has always been an easy game to mate to a computer. Procedures and systems within the game are already laid out with checklists and sequential steps that make program writing relatively easy. In fact, GDW has a whole carton of character generation, system generation, and data handling disks that players and referees have submitted. If you have put Traveller procedures on your computer, we would appreciate a courtesy copy for our files. We promise not to publish your programs without first negotiating a publication agreement.

Meanwhile, this column is devoted to dealing with computerization of Traveller. We expect to address problems in making computer programs work, handling specific situations, and generally providing helpful advice.

In order to be intelligible to the greatest number, most programs will be presented in generic Basic. We write it on an Apple II+; you can transform the programs to your own machine with a minimum of difficulty.

TEMPERATURE CALCULATIONS

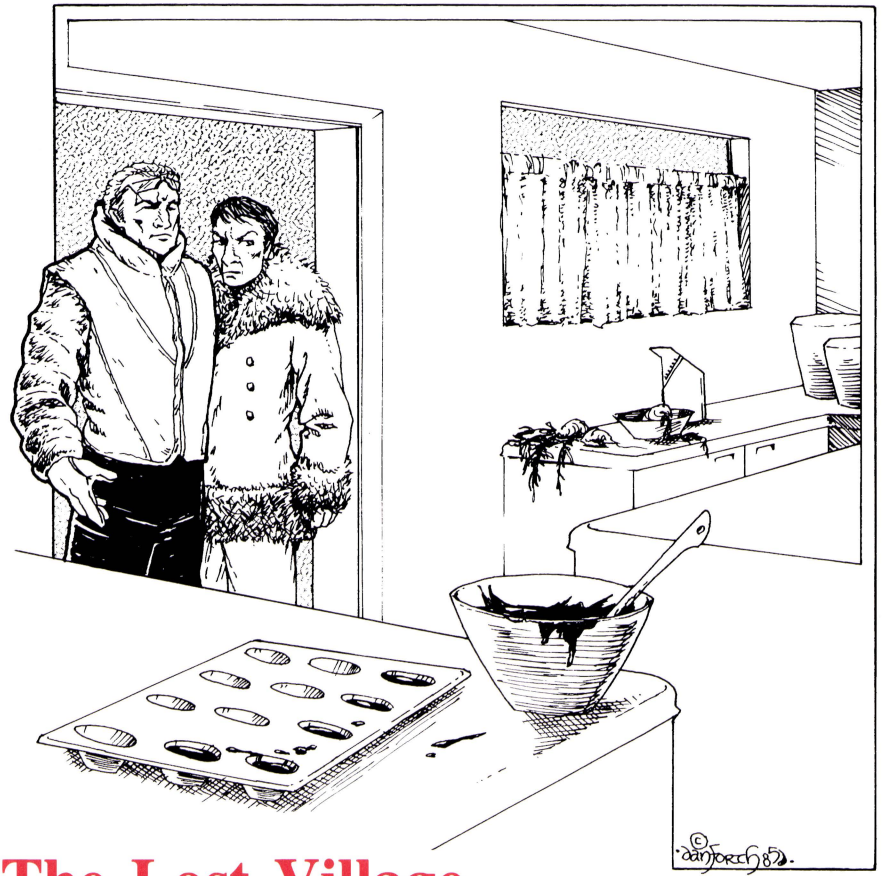
The formulae in **Traveller** Book 6, *Scouts*, sometimes gives players some problems. This program automatically calculates the average local temperature for a world (in degrees Kelvin and degrees Celsius; with and without taking greenhouse effect into account). Required input include distance of the world in AU, albedo of the world, luminosity of the parent star, and greenhouse effect factor. With that information in front of you, the program can provide the average local temperature for the world.

I find this program especially interesting because it allows me to see the different possibilities when I vary distance, albedo, luminosity, and greenhouse effect. Plug in your own favorite world (or even Terra) and see what happens.

This program was originally written to help produce and playtest worlds for various **Traveller** adventures. It is included in **System Survey**, a disk-based set of programs for **Traveller** using the Apple II series of computers. The disk also includes a world generator, a world analyzer, and a set of programs which handle the formulae from *Scouts*.

Next Issue: Quick World Generator.

```
  5 REM Computing Local Temperature for Traveller Worlds
 10 K=374.025
 20 INPUT"Distance (in AU) ";D
 30 INPUT"Albedo (Earth=0.3) ";A
 40 INPUT"Luminosity (Sol=1) ";L
 50 INPUT"Greenhouse Effect (Earth=0.1) ";G
 60 G=G+1
 70 T=K*(1-A)*(SQR(SQR(L))/SQR(D))
 80 PRINT"Local Temperature= ";T;" K"
 90 PRINT"Local Temperature= ";T-273;" C"
100 PRINT"Local Temperature= ";T*G;" K with greenhouse effect"
110 PRINT"Local Temperature= ";(T*G)-273;" C with greenhouse effect"
120 END
```



The Lost Village

Players' Information:

The players have landed on Gadden (Solomani Rim, Harlequin 0106), a planet dominated by backwater settlements. The terrain is mostly barren; the most habitable region is a tundra covering the planet's entire mid-latitudes. The

Amber Zone

starport, Lucky Downs, is barely more than an open field with a small maintenance shack and fuel pumping station: it is truly deserving of its D classification.

While in jump the players noticed that their air/raft had developed engine problems, and communications with the starport indicated that the replacement parts were available in Lucky, the main town.

While awaiting the completion of the maintenance, the crew took a look around. The local atmosphere consists of everything the players expect of a planet well off the beaten path: dirt streets, more bars than homes, and the typical houses of ill-repute. With a planetary population numbering slightly above 70, this place would soon become very dull.

In late afternoon, one of the crew

notices a figure making its way across the snow. The crewman hurries out to help, and finds it to be a local inhabitant, almost frozen and near death. The man manages to get out the words, "They're...all...gone. Everyone's...gone," before he himself dies.

The body is taken to the local doctor, who identifies the dead man as Laster LeBarre, a hunter from a nearby village. He had driven out to his village, a two-day trip by snowmobile, after selling his month's catch of furs. He left over 10 days ago.

The local peace-officer, Constable Monteray, calls the players into his office.

"I can't afford to leave the town just now. Every hunter and trapper in the area has sold his autumn's catch to the dealers in this town. I'm the only law around, and the livelihood of the entire subcontinent depends on that supply being sold to the winter trade ships from Beatus.

"What I'd like to do is to deputize you to go out to LeBarre's village and check out what happened. His last words got me nervous. Since your air/raft is still being repaired, you can use my snowmobiles. I got two, and they carry three men plus equipment on each."

If the players need coaxing, he continues that the job pays Cr125 per week. Not much on interstellar standards, but, if pressed, he could manage to have the cost of the air/raft repairs thrown in.

Once the players accept, the Constable gives them each a deputy's badge, a map showing the route to the town, and gives them the names of the town elders with whom they must speak.

The next morning the players set off across the snow. Midway through the first day's ride, they discover an abandoned snowmobile. If they stop to inspect it, the players will discover title documents identifying it as LeBarre's. They will also find a large oil leak in one of the high-pressure lines. LeBarre walked or ran almost 100 kilometers in sub-zero temperatures with no food to get back to Lucky.

After the second day's travel, the players will arrive at the village. It is little more than a cluster of corrugated tin shacks surrounding a central fire pit. They enter the town as dusk falls. The silence is eerie.

As the players search the town, they find no one home—no men, women, or children, although the village probably held twenty or more. Lights and heating units were left on, and some shacks have food still cooking above open fires and primitive stoves. It is burnt badly. In some shacks, knitting needles were left in garments. The signs of a hurried departure are everywhere.

On another side of the village, a grave lies opened. It is empty, and has a light layer of snow inside.

Referee's Information

At this point, the players have two options: they can stay the night in this spooky place, or they can ride two more days back to Lucky. If they do the latter, the Constable will listen to their report gravely, and inform them that local citizens never open graves once the body is placed inside. It must have been the work of off-worlders. He will ask them to conduct a full investigation, for as long as it takes. If they refuse, he will hold them until an investigation can be conducted, arresting them if necessary.

It is unlikely that the players will ever find the true story of what happened: it will probably remain one of the mysteries that will keep them awake nights for years to come. Depending on their resourcefulness and equipment, however, they may be able to uncover more details. The full story is this:

Four years ago, Lergei Stallenze arrived on Gadden ready to make his fortune as a hunter. After a discouraging season, he and his partner, Toolian DeGuere, found the remains of a burial mound. Inside they found a small fortune in gold and jewels, placed there by some long-forgotten priests. Because of Toolian's superstitions, he refused to allow Lergei to raid the mound of its riches. Because of their friendship, Lergei agreed. Three months ago, Toolian died in an avalanche. His body was recovered and buried near his home village. Lergei remembered the treasure, and planned to make his fortune. From the starport, he contacted a ship which was to pick him up on the plain between the village and Lucky, and then return him to the village. Unfortunately, one of the local villagers' superstitions required burying all a man's possessions with him, so the map to the treasure was buried with Toolian's body. Lergei dug open the grave late one night and recovered the map, but was seen by an early-rising member of the village. One death led to another, and he eventually killed all the men in the village. Most of the women and children escaped into the wilderness, and eventually died.

Lergei tied the bodies together and sank them in the nearby lake, and went off to find the treasure.

With the map leading the way, Lergei was able to recover the treasure and meet the starship which spirited him to safety. Laster LeBarre decided to visit the village only a week too late—otherwise he, too, might have disappeared at the bottom of an icy lake.

It should be cautioned that finding out the details of this story would take exhaustive searching of the icy lake, where the bodies of the local men may be found, of the surrounding plains, where the frozen bodies of women and children may be found, and of the nearby foothills, wherein lies the pillaged burial mound. After finding all these clues, the players may be able to surmise the gist of the story, but they will not find Lergei. That is another adventure.

— *Jeffrey Groteboer*

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continued from page 33

supplies cost .5% the ship's total cost. Life support calculated for five year periods is 250,000 credits per stateroom occupied.

Such preventative maintenance will take 4-6 weeks in any event. This addition allows the players to really venture out into unknown space should they choose. The referee has ultimate say about the ability of the crew to make do with the supplies.

CONCLUSIONS

The introduction of *High Guard* into your campaign, if you haven't done so already, can make for some real thrills in Travelling. A whole adventure might be based upon the need your players have in dealing with the TL-7 natives for access to the machine shops required to trim that troublesome fluctuation from the maneuver drive.

ADDITIONAL READING

High Guard: Optional Rules, JTAS #14 or BOTJ #4

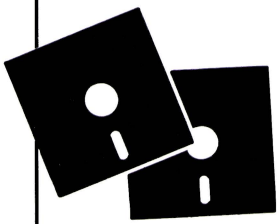
TCS Squadron Design I & II, JTAS #14 and #15

Starship Malfunctions, JTAS #15

Adventure 5, *Trillion Credit Squadron.*

Integration with **Traveller,** *Striker,* Book 2.

— *Leroy W. Guatney*



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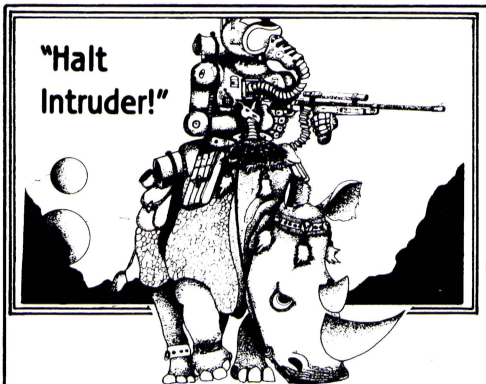

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Contact: *The Dynchia*

Trailing the Old Expanses, there is a region of scattered client states. Most of these are small and unimportant backwaters of trade. The chief exception to this rule is the Comitia of the Dynchia, a powerful realm that stretches into five subsectors. Less than ten percent of the Comitia's population is of Solomani extraction, and these are found mainly in the worlds to spinward. The remaining population consists of a minor race, called the Dynchia (pronounced DIN-chee-ah), who originated on Melantris/Melantris (0603-A6669C7-C).

Dynchia (the same word is used as both singular and plural) are about 2.2m in height and weigh about 100 kg. They are slender and long-limbed. Skin tones range from pale to bronze-tan; hair color is usually brown or black, but snowy white hair is not uncommon. Hair fibers are soft and silky, and hair runs in a bushy mane down to the small of the back. Facial hair is non-existent.

The Dynchia have six fingers on each hand, and six toes on each foot.

Finally, the Dynchia's teeth differ notably from other similar species, in that instead of separate teeth, their dental batteries consist of two bony "jaws" (as if the teeth had been fused into one upper and one lower "jaw"), with fang-like extrusions. Obviously, the Dynchia prefer plenty of meat in their diet.

The major difference between the Dynchia and the rest of Humaniti (other than their radical physical divergence, a result of geneering by the Ancients) lies in the realm of psychology. Two of the most common culture-shaping elements

of human psychology (the instinct to protect females from danger, and the instinct to possess territory) seem to have been left out of or modified in the Dynchia. The Dynchia have absolute equality of the sexes; prejudice or protection is psychologically impossible. Being gallant to a Dynchia female (who is as likely to be an admiral as a male) will earn you only a blank stare.

The instinct to possess territory has also been modified in the Dynchia. A Dynchia is not a citizen of a particular world; he is a member of a clan (which in turn is a member of a tribe). It doesn't matter where the tribe rules, as territory is unimportant. There has not been an actual war within the Dynchia race since prehistory, only minor squabbles. Wars are fought with outsiders, for survival instead of territory.

HISTORY

In the latter days of the Rule of Man (ca. −1820), Solomani traders made contact with the Dynchia, who at that time had achieved tech level 8, and were beginning to reach into space. In a few years, the Dynchia had begun to make use of jump technology. Because of the collapse of the Rule of Man, they were never brought into the Imperium; they were instead left to develop on their own. With only Jump-1 technology, they settled the nearest worlds and proceeded to develop them. The pace of their expansion was slow and meticulous, so the outlying worlds developed slowly and steadily, with no actual technological backwaters or "forgotten colonies". As technology progressed and expansion continued, the Dynchia encountered worlds to spinward that had been settled by the Solomani before the collapse of the Rule of Man. Wars occurred, but a peaceful solution presented itself. The Dynchia took the Solomani worlds into their Comitia and spread them thinly on the rest of the Dynchia worlds, though many were left in the spinward third of the Comitia.

The Solomani were brought up in the culture of the Dynchia, and (surprisingly) it worked. The Solomani population of the Comitia became accustomed to "thinking Dynchia" in a few generations.

With the advent of the Third Imperium's traders and scouts, the Dynchia took up trade with equanimity. The Comitia doesn't worry about the Imperium, since the region is well outside the Imperial sphere of influence. The first Imperial traders reached the Comitia in 802, through the Harodar Hegemony to coreward.

Dynchia technology has progressed slowly, and experienced many setbacks, but the Comitia has considerable industrial might for a tech level 12 nation. This is mainly because the Dynchia undertake the development of a world with great care, making full use of its resources and protecting its environment from harm.

SOCIETY

The Dynchia have a rare and unusual quality: they are warrior individualists in an un-warlike culture. This is to say that the Dynchia never make war upon their race, though fights, duels and challenges are common, as is a warrior ethic.

Their culture is completely independent of territory. Each Dynchia is a member of a clan, which in turn holds a particular rank and position in one of the twelve tribes. One's position within the clan, and the clan's position within the tribe, determines one's degree of status in the tribe. Each tribe is partly a non-territorial nation, partly a sort of "clan" in the greater "tribe" of the Dynchia race itself. This strong sense of racial and tribal unity is what keeps war from being an issue in the Comitia (except vs. outsiders, as a matter of survival).

The social basis of Dynchia mentality is a deep-felt sense of honor (both personal, and as part of a clan or tribe). It would be unthinkable for a Dynchia to compromise his or her personal, clan, or tribal honor — especially since the general religion of the Dynchia is reverence for ancestors and worship of tribal heroes. To be false to one's honor is to forfeit a chance to become a revered ancestor.

Solomani citizens of the Dynchia Comitia have adopted all of the mores and customs of the Dynchia. They are regarded as being a sort of "thirteenth tribe" and have representation at all levels of government. Even in the ruling council, the so-called "Council of the Twelve", the Solomani are represented by a delegate, the Voice of the Thirteenth Tribe, who has the right to speak before the council, though he has no vote.

GOVERNMENT AND MILITARY

The government of a Dynchia world is always type C, charismatic oligarchy, regardless of the other statistics of the world. At each successive level of government, the leaders are a council consisting of the top ranking members of each tribe present. The highest of these councils is the Council of the Twelve, which rules all of the Comitia, and speaks for all the tribes. The highest ranking member of the highest ranking clan of each tribe is the Prince of that tribe, and sits on the Council.

For reasons of organization, the military is subject only to the Council of the Twelve, and exempt from responsibility to clan or tribe. Note that the Dynchia culture emphasizes the warrior ethic. At coming-of-age, all individuals go through an extensive series of trials, to determine their right to the status of adulthood. Seven percent fail—and die. Thus, all adults are skilled warriors. The military are merely the cream of the crop, specializing in combat arts. For this reason, most of the Comitia's budget is used on the navy and marines. Army units aren't really necessary.

It is generally considered impossible to conquer a Dynchia world. Though it might be possible to destroy the entire Dynchia race, it would not be possible to make them surrender, even in the face of racial extinction.

The Comitia controls much of the trade in the region, though the Harodar Hegemony to coreward has been trying to capture the market. A few short wars have been fought with the Harodari. All have been won by the Dynchia.

While the Dynchia have a low tech level (TL-12), they are not really hampered by this. Not only is it higher than most TLs in the region, but the Dynchia have an added advantage—they have refined, even revolutionized, design theory, to the point where everything is designed for maximum efficiency and beauty. They may not have fusion guns, but they have the best laser rifles in all of known space, and the same applies to all of their industry. A low rate of population expansion gives them time to fully develop a world before they are forced to expand by population pressure. As an example of the degree of perfection Dynchia designers have achieved, it may be mentioned that Melantris, with a population of over four billion, has little or no pollution problem; all wastes are recycled and made use of. What's more, the Dynchia architecture is famous for its beauty and perfection.

So, while the Dynchia technology progresses slowly, at best, they can do more with that technology than any other race.

REFEREEING THE DYNCHIA

Character Generation: Dynchia are adapted to low gravity. Their initial strength is generated as 1D + 3. Dexterity and education get a + 1 DM each, and all other scores are rolled for normally.

Careers are administered as usual. Comitia citizens, whether Dynchia or Solomani, can enter the Comitia Navy, Marines or Scouts. Add a −1 DM to enlistment for the army, and reroll any draft into the army, as this career is rare on the Dynchia worlds. All Dynchia and Solomani citizens of the Comitia receive one level in any combat skill, free choice, because of the warrior ethic. No skills of TL 13+ may be acquired by characters.

High Guard generated navy characters are regarded as being in a subsector navy (planetary navies are part of the same service, and the Comitia navy cannot compare with the Imperial navy).

Dynchia are occasionally encountered in the worlds near the Comitia, and sometimes travel as far as the Solomani Sphere, the Imperial Old Expanses Sector, or the Hive Federation. Such characters are either scouts, merchants or adventurers.

Playing Dynchia: Dynchia should be played as warriors, very touchy of their honor, willing to stoically bear impossible burdens for the sake of their personal/clan/tribal/racial honor. Each Dynchia has his or her own idea of proper honor, so this is more or less up to the player. Remember that a Dynchia is free of sexist prejudice—the thought simply does not occur to them. Dynchia engineers, as stated, know a lot about good design. They can usually improve

a device, if it can be improved at all.

Naming Dynchia: A Dynchia name follows a simple pattern: "xx of yy, called zz," where xx is the personal name, yy is the current place of residence, and zz is an honorific name, bestowed at coming-of-age, and describing his or her personality succinctly.

The tribe of the individual is noted by the ending of the personal name; thus, Astolian is a member of the Lian Tribe, Estravel is of the Avel Tribe, and so on. The Twelve Tribes of the Dynchia are: Lian, Avel, Erol, Kirest, Nast, Otir, Kila, Sirne, Tros, Rhes, Saro, and Dera.

Playing Solomani Citizens of the Comitia: Solomani citizens of the Comitia have adopted the Dynchia culture (or have been adopted by it). They should be played exactly as Dynchia, but their names will be Solomani in origin, and, of course, will have no suffix denoting tribal affiliation. They are considered as being part of a separate tribe, so their physical differences from other Dynchia are enough to identify their "tribe".

A Note on Astrographics: The Dynchia Comitia is located directly under the legend "Scattered Client States". It spans five subsectors in two sectors. The sector immediately trailing the Old Expanses is called the Margin Sector, and subsector P of this sector is Comitia territory. The sector trailing the Margin Sector is called Melande Sector, and the Comitia covers locations I, J, M, and N in this sector. The Melantris subsector is in position M.

— *Peter Rasmussen*

Editors' Note: This article was prepared without reference to the *Atlas of the Imperium,* and the data given above will not completely agree with it. Referee's wishing to incorporate the Dynchia into their campaigns may modify this data as they see fit.

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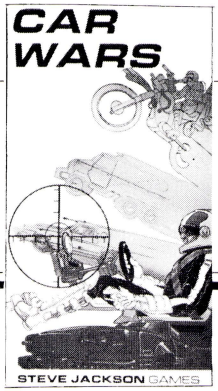

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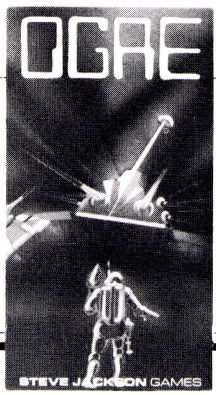

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